Spring 5-2018

COLLEGE AND CAREER READINESS: EXPLORING THE PERCEPTIONS OF RECENT HIGH SCHOOL GRADUATES WHO ENGAGED IN EXPERIENTIAL LEARNING

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A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Education in Instructional Leadership

in the

Department of Education and Educational Psychology

at

Western Connecticut State University

2018

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Abstract

This study was used to explore the perceptions of recent high school graduates about their levels of preparedness for post-secondary life after they engaged in experiential learning while in high school. The source of the participants was the graduating class of 2016 of an experiential learning high school program in Dutchess County, New York called the Career and Technical Institute (CTI).

A qualitative, phenomenological methodology was utilized whereby data were collected through a researcher-created three-level interview protocol applied to a sample of participants (n = 10). Participants were selected from the original 237 CTI graduates through key characteristics on a demographic survey. Four of the participants were attending a two-year community college, three were employed in their area of interest, and three were both employed and attending college. Interviews and follow-up interviews were conducted to gather data until theoretical saturation occurred.

Using the analytical procedures of phenomenological reduction, constant comparison analysis was employed whereby ongoing data collection informed recursive data analysis. As a result of a reductive coding procedure that included open coding, axial code grouping, major thematic identification, ultimately a major finding statement and four sub-finding statements emerged that included experiential learning as a readiness factor, exposure to college and career

experiences, college and career planning, skills and dispositions, and learning. The findings were detailed in a rich, thick description of the phenomenon of college and career readiness and the implications and recommendations that resulted from the study were offered.

APPROVAL PAGE

School of Professional Studies
Department of Education and Educational Psychology
Doctor of Education in Instructional Leadership

Doctor of Education Dissertation

COLLEGE AND CAREER READINESS: EXPLORING THE PERCEPTIONS OF RECENT HIGH SCHOOL GRADUATES WHO ENGAGED IN EXPERIENTIAL LEARNING

Presented by

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2018

ACKNOWLEDGEMENTS

I would be remiss if I did not begin by thanking Ms. Carole Smith, my high school English teacher at Brookfield High School for two years, who taught me much about the craft of academic writing. Similarly, Mrs. Dorothy Miles was my journalism teacher and *Bobcat Review* advisor who taught me how to write like a reporter, not to mention being a model as a compassionate, kind, relationship-driven teacher. Mr. Karl Hermonat was a significant influence on me in high school as well and, most significantly, he taught me how to listen and how to love music.

Dr. Jan Schmidt at SUNY College at New Paltz taught me how to teach writing and I am thankful to her for treating me (as a young graduate student who could not find a teaching job) like a colleague. Dr. Harry Stoneback gave me a love of literature, especially Hemingway and Faulkner, and from whom I took great intellectual inspiration. His insights and voice concerning twentieth century literature still echo in my head after all these years. I have not forgotten his challenge to me to make a difference as an educator.

I am thankful to Mr. Thomas Brooks – my mentor and friend – who had faith in me as a young, very green, aspiring building administrator when he and his committee hired me as an assistant principal at Arlington High School in 2004. The story goes that halfway through my administrative internship, I watched incredulously as Professor Michael Muffs sat at my desk in the closet that served as my internship office and called Mr. Brooks to suggest that he might want to interview me. I got that interview in December of 2003 and by February, 2004 I was broken in as an assistant principal by my good friend, Mr. Frank Corliss.

I am humbled and thankful to have had the good fortune to have Dr. Jody Piro as my primary advisor. She was an outstanding coach, influential teacher, and patient guide throughout

the dissertation process. Her backwards mapping strategy kept my cohort partners and me disciplined and targeted in completing the research and writing steps along the way. She was amazingly generous with her time and exceedingly patient with us as we juggled busy work lives, families, and doctoral activities.

In addition, I would like to thank:

Dr. Stephanie Metz and Dr. Erik Gundel: the other two members of our aptly named "dissertation trio" from cohort 6 with whom I commiserated and from whom I took a ton of encouragement and camaraderie. We shared a lot of laughs during this titillating adventure, did we not?

I am thankful to Dr. Marcy Delcourt for accepting me into the Instructional Leadership EdD program in cohort 6. I continue to be amazed by her incredible intellect and unmatchable attention to detail.

Dr. Richard Hooley: my secondary advisor who generously devoted time and knowledge to me during the dissertation process and allowed me to access the CTI program as my research population.

Dr. Paul Fanuele: my secondary advisor, colleague, and friend who provided insight about the dissertation process and selflessly gave his time and energy throughout. He is truly an individual who models every day what it means to be a lifelong learner and I consider myself fortunate to be a member of his administrative team.

Mr. Frank Pepe: an inspirational human being who encouraged me to pursue a doctorate eight years ago and who believed in me as a school leader. He recognized the value of WCSU's Instructional Leadership doctoral program and actually negotiated it by name into our administrative contract many years ago.

Mom and Dad: for being patient with me as an indecisive undergraduate as I took five years and explored different academic pathways, including a semester studying abroad in France, not to mention your and Ernie's encouragement and support throughout this latest academic adventure.

My wife and best friend, Kathy: for enduring all of the lonely Thursday evenings and all of the times when I was preoccupied with assignments and for picking up the slack at home when I was not around. Thanks for patiently tolerating this five-year pursuit and encouraging me to realize my dream of a doctorate. I am looking forward to our continued adventures together especially now that this latest project has come to a close. I love you!

Madison, Hudson, and Andersen: for growing up to be wonderful human beings of whom I am immensely proud! You have been cheer-leading me along the way and patiently enduring my absences when I needed to attend class or write. It is amazing that H and M and I are graduating together this year! Go Brewers! Go Bulls!

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CHAPTER ONE: INTRODUCTION TO THE STUDY

There is a growing amount of attention in both the popular media (Gewertz, 2010) and research literature about college and career readiness (Darche & Stam, 2012). Many writers (e.g., Mehan & Chang, 2011; Wheeler, Davis, & Evans, 2017) cited criticism from the business community with regard to the poor preparation of high school graduates for the kinds of skills entry level workers with a diploma were expected to have (Pianin, 2014). Similarly, the higher education community (e.g., Santos & Haycock, 2016; Simons, 2015) was also critical of the many students who arrived on their campuses ill-equipped to deal with the college experience. To illustrate, the National Center for Education Statistics data (Sparks & Malkus, 2013) indicated that in 2007-2008 approximately 23.3 percent of first-year undergraduate students attending public institutions reported taking remedial courses (Sparks & Malkus, 2013). The preparedness outlook is worsened by the fact that "nearly half of all students who begin college do not graduate within six years" (US Department of Education, 2015).

The changing dynamic of the world of work and the world of higher education facing high school graduates reflects a profound shift that requires a different skill set than what was previously required that includes non-cognitive "success skills" (Conley, 2016). "Globalization and technological change together are transforming the needs of employers" and this phenomenon has changed what is expected of workers by business leaders (Greenberg & Nilssen, 2015). This fluctuation in readiness expectations gives educators pause and demands a rethinking of the ways in which high schools prepare students for the next stage of their lives (Bentley University, 2014).

Historically, the purpose of school was to prepare students to be contributing, productive members of society with a solid foundation in the core subject areas so as to prepare them for

democratic participation (Dewey, 1916). While that purpose is still an appropriate aspiration for our schools, the way in which that preparation happens, particularly in our high schools, has been called into question (Mirel, 2006). Educators have been challenged to take a closer look at how well the skills and knowledge of our high school graduates actually match the demands of the world of post-secondary college and careers in the 21st century (Bentley University, 2014). It appeared from the literature that this was a different world than the one that existed when schools were originally established (Rotherham & Willingham, 2009).

Much of the publicity surrounding college and career readiness was caused by the drive from politicians and education leaders to develop and adopt the Common Core State Standards (CCSS); (Bidwell, 2014). David Coleman, the principal architect of the CCSS, asserted that his organization, The College Board, aimed to prepare students "for a successful transition to college through programs and services in college readiness and college success — including the SAT and the Advanced Placement Program" (College Board, 2015). Similarly, Conley (2012) provided a commonly accepted definition of college 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" (p. 1). Another report suggested that students were ill-prepared when they arrived at college: "Nearly one in three high school graduates who took the ACT tests are not ready for entry-level college courses in English, reading, math or science" (Bidwell, 2013).

However, Conley (2012) explained that there was more to readiness than just the avoidance of remediation. He described "Four Keys" that included and expanded upon traditional academic knowledge: "Key Cognitive Strategies, Key Content Knowledge, Key

Learning Skills and Techniques, and Key Transition Knowledge and Skills" (p. 2). Similarly, the California Center for College and Career (2012) published a synthesis of recent studies about readiness that identified a more robust understanding of a preparation that led to success. Namely, "among the generic transferable skills critical for success in both education and careers are a group of noncognitive, or social-emotional, skills.… We refer to them as 'productive behaviors and dispositions'" (p. 8).

The California Center for College and Career (2012) proposed a framework "to address the varied ways that students can be supported to achieve the societal goal of an educated, engaged, and productive adulthood for all young people" (p. 2). There are examples of schools that are attempting to address what students need to be successful in colleges and careers programmatically (e.g., Rothman, 2017; Vargas, Hooker, & Gerwin, 2017). Nationally, there is a patchwork of student preparation curricula but few as comprehensive as the California initiative (ConnectEd: The California Center for College and Career, 2012). Generally, students find themselves predominantly on their own to develop the dispositional wherewithal to transition successfully after high school graduation whether in college or newly employed (Vargas, Hooker, & Gerwin, 2017).

The researcher investigated the perceptions of high school graduates who were engaged in a learning-by-doing program while in high school and who were in their first year of college or work with respect to how prepared they felt to face the experiences of college or of the workplace.

Rationale for Selecting the Topic

The concept of college and career readiness is an emerging one, and the dominant voices in the literature until recently have been researchers who have thus far provided a rather narrow

view of readiness (Vander Ark & Ryerse, 2017). However, Harvard professor, Richard Light (2001), published a book that reported the findings from over 1000 interviews of undergraduate students over a 10-year period. What emerged was a compendium of advice about how students can make the most of their college experience. Young people in their first year of post-secondary life naturally encounter transitional challenges either in pursuit of a college degree or in an actual work setting that may suggest ways that could be anticipated and better planned for by future graduates and school leaders charged with preparing those graduates (Venezia & Jaeger, 2013). The ConnectEd (2012) synthesis framed the challenge well:

> Given the rise of new technologies, the globalization of industry, and persistent achievement gaps and unemployment rates, we can no longer afford to maintain traditional educational dichotomies – between college and work, between academics and technical skills, and between cognitive skills and character. These divisions have proven unproductive; students need all of these. We must move with urgency toward a synthesis that will benefit both individuals and society. (p. 3)

A small percentage of students engaged in an experiential learning program at the Career and Technical Institute while in high school. This program offered authentic, hands-on exposure to a field of interest that elicited insight in the current study about how experiential learning contributed to college and career readiness. What was missing from the literature was validation of the career-related benefits of experiential learning on recent high school graduates (Esters & Retallick, 2013) who experienced first-hand the transition from a structured, secondary school experience either to a college setting or that of the workplace. It is currently unclear from the literature how high school graduates view readiness and what they perceive to be the issues related to their own sense of readiness relative to their high school hands-on learning experience.

The researcher explored the perceptions and attitudes of young adults in their first year of post-secondary life regarding the phenomenon of readiness emerging from experiential learning.

Statement of the Problem

The voices that were often missing from the rhetoric evident in the media and research that decried the lack of readiness of high school graduates were the graduates themselves (Byrd & Macdonald, 2005). Where there was ample representation of the voices of business leaders, politicians, corporate executives, and professors (Goode, 2015), there appeared to be a dearth of information from the experiencers of the readiness deficiency themselves − recently graduated high school students who found themselves doing their best to function successfully in college or in the workplace. There is much to be learned from students who are new arrivals to college life or careers and who can assist in constructing answers to what is beneficial or what is missing from their preparation for post-secondary lives. Their voices provided an understanding of the truth of the high school experience with respect to college and career readiness. Their insights about what they felt prepared them best − and what left them unprepared − to face life after high school provides important information for secondary level teachers and leaders as they envision programs and policies for future students.

A survey of over 3,000 respondents about student preparedness found that 94 percent of a diverse group of stakeholders (leaders in higher education and business, corporate recruiters, current high school and college students and their parents, recent college graduates, and the public at large) identified that "college learning must incorporate and blend together academics and hands-on learning" (Bentley University, 2014, p. 16). The study also established that 82 percent of respondents supported that "internships need to be mandatory for students in order to gain real-world experiences" (p. 17). Students enrolled in career and technical education

programs that foster the development of "productive behaviors and dispositions" (ConnectEd, 2012, p. 8) can hypothetically elicit perceptions of preparedness better than students who did not. Study participants were asked to identify how and why experiential learning experiences during high school contributed to positive perceptions of readiness for college and careers.

An understanding of the adequacy of the preparation students receive before they exit high school is important for teachers, instructional leaders, administrators, and school officials because it can be used to inform school district policy, curriculum planning, and academic programming. It is a worthwhile endeavor to pursue an understanding of readiness because the world of work and careers had changed and requires a different kind of preparation than the one provided by the traditional high school curriculum (Kushell, 2014). Parents, school community members, and indeed students themselves have an interest in the value and meaning of the high school diploma − a credential that is supposed to represent a certain body of knowledge, set of skills, and habits of mind that will support fulfilling, successful pursuits after high school (Hess, 2010). The high school graduation rate has been steadily increasing with the national average at 82 percent in the 2013-2014 school year; but this is not necessarily an indicator of readiness. There is incongruence between the rising graduation rate and students' readiness for college and careers (Rich, 2015). "This has led educators to question the real value of a high school diploma and whether graduation requirements are too easy" (Rich, 2015, p. 2). All stakeholders in the school community stand to gain important knowledge from former students about how high school preparation for college and careers could be improved and accentuated.

Significance of the Research

A potential benefit of this study is identifying how experiential learning in high school may enhance the readiness of graduates for the challenges they face as freshmen in college or

first year employees in the workforce (or both). The research may provide guidance for career and college readiness based upon the perceptions of the participants.

Brief Definition of Key Terms

There are several key terms related to this topic that are important to understand to place the topic in the proper context.

1. Alternative credentials refer to the earning of credentials in place of or in addition to a high school diploma or a college degree. Alternative credentials are gaining in popularity because they provide certificate holders with increased employability that can translate into additional economic power (Carnavale & Rose, 2015; Ewert & Kominski, 2014). For example, New York State offers the Career Development and Occupational Studies exiting credential for special education students who may or may not earn a diploma or a graduate equivalency diploma.
2. Board of Cooperative Educational Services (BOCES) is a regional supporting agency for New York State public schools offering professional development, alternative learning environments, programs for students with disabilities, and career and technical programs. Established in 1948, there are 37 BOCES throughout New York State designed "to help meet students' evolving educational needs through cost-effective and relevant programs" (Capital Region BOCES, 2017, About BOCES page).
3. Career Technical Institute (CTI) is a program that is run by the Dutchess County BOCES where teachers endeavor to "offer students the opportunity to gain basic entry level career skills as well as the skills necessary to enter a college or technical school" (Dutchess BOCES, 2017, Career & Technical Institute page) through

experiential learning. The sample for the current study was accessed from the 237 graduates of the class of 2013.

4. CDOS is a relatively new certification program that stands for Career Development and Occupational Studies and is designed to provide students with disabilities an exiting credential that is indicative of preparation for the world of work after high school. This commencement credential was intended to replace the IEP diploma that used to be awarded instead of a regular diploma but now also serves as an alternate credential for students who graduate with a diploma. Individuals who earn the credential have demonstrated "the knowledge and skills necessary for entry level employment" (DeLorenzo, 2013, Special Education Field Advisory 613).
5. College and Career Readiness is a phrase that has been discussed widely (Ambrose & Poklop, 2015; ConnectEd: The California Center for College & Career, 2012) and some attempts have been made to define it (Bentley University, 2014). In fact, there are websites devoted entirely to the explanation and study of this phenomenon (e.g., Achieve, Inc., 2018). The most common definition is, in Conley's (2012) words: "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" (p. 1). This definition leaves out career readiness skills which Conley and McGaughy (2012) suggested are different. However, they also contended that there are skills that both college and career share such as "study skills, time management skills, persistence, and ownership of learning" (p. 31).

6. College completion is a phrase that is often discussed as a measure for successful preparation for college. For example, poor college completion rates are used to illustrate that students were not adequately prepared for the rigors of college life (Ahearn, Rosenbaum, & Rosenbaum, 2016).
7. Common Core State Standards (CCSS), also known as Common Core Learning Standards, were the standards initiated by state government leaders from most states, such as governors and commissioners of education, who wanted to create nationally agreed-upon standards that would be transferable anywhere in the United States (Common Core State Standards Initiative, 2015). They were broadly adopted by most of the states but have been the source of much debate and disagreement ever since (Mathis, 2010), especially in how they should be implemented and tied to standardized tests.
8. Experiential learning, also referred to as hands-on learning, combines the acquisition of academic skills and knowledge with hands-on experience in a particular field. For example, students at the Career and Technical Institute (CTI) enroll in a course of study that includes experiences in a career interest such as cosmetology, security and law, health sciences, and so forth. Another name for experiential learning is "work-based learning" and Bonefont (2016) posits on the CTI website that "the important thing to remember of Work-based Learning is this — Experience is the best teacher. The more you achieve from 'authentic learning,' the better your chances of being hired in the labor market." The conjoining of hands-on experience and academic learning is consistent with the philosophy offered by the Southern Association of Colleges and Schools Commission on Colleges (2013) that "experiential learning

provides a means to both enhance student engagement and to better prepare students for success after graduation" (p. 28).

9. Learn by doing is a phrase associated with Dewey (1938) and it is essentially another name for experiential learning. "Learning by doing and applying theory to practice is considered crucial for student success in an ever-changing, increasingly connected, and global world" (Southern Association of Colleges, 2013, p. 7). The phrase is attributed to Dewey (1916) who wrote that education is regulated to that which can be memorized and reproduced unless it "exists as matter of an active doing, involving the use of the body and the handling of material" (p. 178).
10. Pathway is another term that appears often in the literature and it describes metaphorically what direction students take in their pursuit of a diploma or the route they choose in their post-secondary lives. While the term carries some complexity, its definition for the current study can be reduced to the following definition: "Pathways can reflect the perspectives and priorities of individual young people and enable them to manage and control their own itineraries" (Raffe, 2003, abstract).
11. Preparedness is synonymous with readiness. Determining what it means to be prepared for college or the workplace is challenging and there does not appear to be consensus between educators, students, and business leaders about the factors that point to preparedness. Business leaders suggest that a work ethic, adaptability, having a good attitude, being respectful, and maturity are indicators of preparedness (Bentley University, 2014).
12. Post-secondary is a term used to label the period or stage of life after secondary education that terminates with high school graduation. It refers to "post-high-school

education and includes community colleges and higher education institutions. Post-secondary education also encompasses vocational education and training, adult and community provision, lifelong learning, higher education, apprenticeships, and work-based learning" (Leathwood, 2006, p. 167).

13. Readiness is synonymous with preparedness. While it is easy to dichotomize college readiness and career readiness, it appears that "we must move with urgency toward a synthesis [between college and work] that will benefit both individuals and society" (ConnectEd: The California Center for College and Careers, 2012, p. 3).
14. Soft skills "are general skills—like the ability to accept feedback, work collaboratively, manage your time" (Live Career, 2016).

Brief Review of the Literature

The literature review in chapter two is organized according to the finding statements with an introductory section devoted to important theorists (Bandura, 1986; Dewey, 1938; Kolb, 1984; Vygotsky, 1978) about experiential learning. This literature base supports the findings from the current study that participants credited their positive perceptions of readiness to their hands-on learning program at CTI where they received exposure to a specific career field, engaged in college and career planning, developed skills and productive work dispositions, and prepared for learning challenges they would face post-high school.

Major Finding Statement

The thrust of the major finding statement literature supported participants' perceptions that their college and career readiness was enhanced by their hands-on learning experience because they were more engaged as a result of supportive adult interactions (Gentry, Peters, & Mann, 2007), connections to their interests and abilities, and job exposure (Bissell, 2017).

Participants developed important non-cognitive readiness skills such as resilience by having successful work experiences (Lent, Hackett, & Brown, 1999) before graduating. Overall, readiness as a phenomenon was engendered in participants because of their participation in a CTE course of study at the same time that they were enrolled in their traditional home high schools (Gentry, Peters, & Mann, 2007) where both college and career readiness were simultaneously cultivated (Conley & McGaughy, 2012).

Exposure

The literature review then focused on sub-finding statement 1 that related to how experiential learning enhanced participant career self-efficacy and career decision-making (DeLorenzo, 2000), vocational identity (Esters & Retallick, 2013), and confidence (Wee, Weber, & Park, 2014). Exposure experiences through experiential learning took form in a variety of ways including undergraduate co-op experiences (Ambrose & Poklop, 2015), internships (DeLorenzo, 2000), job shadowing (McCarthy & McCarthy, 2006), and practicums (Wee, Weber, & Park, 2014) and led to "self-regulated learning" (Khaled, Gulikers, Biemans, & Mulder, 2016) and other benefits like extending classroom learning, encouraging self-directed learning, promoting deep and flexible learning, and increasing motivation (Ambrose & Poklop, 2015). The literature revealed that employers and students supported instituting a more hands-on approach (Peter D. Hart Research Associates, 2006) because experiential learning supported the establishment of career interests, a connection between learning and a career, the development of workplace social skills (Lent, Hackett, & Brown, 1999) and provided a connection to the "real world" (Higgins & Boone, 2003; Kolb 1984).

College and Career Planning

The focus of the next section of chapter two is on the literature that supported sub-finding statement 2 that college and career preparation was facilitated by experiential learning. This section is divided into the literature that related to self-efficacy in career field and career planning (Lent, Ireland, Penn, Morris, & Sappington, 2017) and college and the development of "college knowledge" (Hooker & Brand, 2010, p. 77) with experiential learning programs such as early college high schools (Edmunds, 2012; Hooker & Brand, 2010). At the same time, the literature supported the benefit of participants earning alternative credentials such as licenses because they can lead to higher pay and more employment possibilities (Ewert & Kominski, 2014). Preparation for college and career does not have to start in high school, however; rather, it can start in elementary school (Radcliffe & Bos, 2013).

Skills/Dispositions

The next section of chapter two addresss the literature that related to sub-finding statement 3 that was primarily concerned with the skills and dispositions developed through experiential learning. High school graduates need more than just academic learning to be successful after high school (Southern Association of Colleges, 2013); they also need to be proficient in soft skills (Bolkan, 2015; Greenberg & Nilssen, 2015) that include the ability to manage time and balance (Byrd & MacDonald, 2005; Light, 2001), to work with others, to problem-solve, to adapt, and to engage in lifelong learning (Carnavale & Rose, 2015). The literature relating to work dispositions such as lifelong learning (Friedman, 2016), success skills (Hoerr, 2017), adaptability, and resilience (Murphy, Blustein, Bohlig, & Platt, 2010) was also discussed along with work self-efficacy (Raelin, 2010).

Learning

Sub-finding statement 4 provides the thematic focus of the literature in the final major section that relates to learning readiness inculcated via choice or autonomy (Domers, 2017; McDonald & Farrell 2012;Toshalis, 2015) and supportive teachers or adult support (Bennett, 2007; De La Ossa, 2005; Gewertz, 2017). The literature was also explored as it pertained to the study skills necessary for college readiness (Conley, 2012) that were cultivated by providing authentic context through experiential learning (Wingate, 2006) and the development of both skills and knowledge (Brown, 2014).

Overview of Methodology

Research design

The research was conducted using a phenomenological emergent design whereby phenomenological reduction was applied to arrive at the essence of the phenomenon of college and career readiness.

Processes

The researcher used a phenomenological reduction approach to data collection and analysis whereby interviews were collected, read multiple times, coded, and analyzed using a recursive, constant comparison process. Meanwhile, presuppositions and biases were bracketed through epoche journaling and potential meanings were explored through imaginative variation and horizonalization (Moustakas, 1994).

Methodology

Once the research topic was identified and it was determined that it warranted study, a qualitative approach using a phenomenological methodology was chosen because it held the

most potential in exploring the essence of college and career readiness. More specifically, a three stage interview instrument protocol was crafted and applied to an in-depth, semi-structured initial interview and two follow-up interviews that progressively explored the phenomenon with participants who served as co-researchers. The researcher subsequently coded and analyzed the interview transcript data using a constant comparison, emergent analysis to synthesize the data.

Setting

The Career and Technical Institute (CTI) is a Board of Cooperative Educational Services program in Dutchess County, New York that serves 13 school districts. While in one of four of those high schools, the participants attended half of the school day in their home high schools following traditional courses and half of their day at the CTI program building in Salt Point, New York where they engaged in experiential learning.

Participants

There were 10 participants in the research study (n = 10) who all completed the CTI program in 2013 and all but one participant also earned a diploma from their home public high schools. The participants represented a variety of experiential learning programs including culinary arts, cosmetology, nursing, early childhood education, and auto body repair. Four participants (n = 4) attended a two-year community college; three participants (n = 3) were employed in the specialization they studied at CTI; and three participants (n = 3) were both attending community college and employed in their area of interest.

Sampling

The sample was drawn from a population of 237 CTI graduates in the class of 2013. Purposeful sampling using three criteria, a. participants who engaged in experiential learning; b. participants who were studying their field of interest in college or working in their field of

interest; c. participants who were working or studying in varied fields of interest, and was employed so as to identify participants who would provide insight about the relationship between experiential learning and readiness for college and career. The researcher sought a balance between participants who were pursuing college study and those who had ventured directly into the working world after high school. "Maximum variation sampling" (Merriam, 2009, p. 78) was also utilized to establish a sample with adequate density.

Data Collection

A demographic survey was administered at the outset of the research process. What followed was a series of three interview protocols designed to procure data systematically and progressively. Interviews were digitally recorded, submitted to a professional transcription service, and then printed so that rigorous analysis and an interpretation regimen could proceed.

Cessation of Data Collection

The three levels of interview protocols were designed to effectuate a robust body of data that could be used to construct a rich, thick description of the phenomenon of college and career readiness. The researcher endeavored to arrest data collection once new codes and coding categories ceased to be productive; that is, once a point of theoretical data saturation (Glaser & Strauss, 2012) was reached.

Data Analysis

A phenomenological reduction (Moustakas, 1994) coding procedure was utilized whereby open codes emerged through careful reading of the transcripts which were then combined into axial coding groups. Coding assignments were made using HyperResearch (Researchware Inc., 1997-2016) software that enabled the researcher to code the transcripts, reduce and organize the codes into common categories, and remain open to emerging themes.

After subsequent, line-by-line readings, themes developed over time through constant comparative data analysis. Ultimately, the emergent process led to a major finding statement and four sub-finding statements that formed the structure for a rich, thick description of the phenomenon. Reflexive journaling occurred throughout the process to bracket personal bias and to engage in the Moustakasian epoche process.

Trustworthiness

Several trustworthiness measures were employed to minimize the influence of bias in the study using the four areas commonly adopted by qualitative researchers: credibility, transferability, dependability, and objectivity (Lincoln & Guba, 1985).

Summary

The purpose of this study was to explore the phenomenon of college and career readiness as it related to the high school experiential learning experiences of participants. The researcher endeavored to extract the essence of the phenomenon by accessing the voices of recent graduates who were in the midst of the first year of their transition into college or employment.

CHAPTER TWO: REVIEW OF THE LITERATURE

Chapter two is focused on the literature that relates to the current phenomenological study. That is, the researcher's emergent finding statements emanated from extensive analysis and coding of interview data. The related literature that supported the finding statements was then identified. What follows is a thorough review of the literature as it relates to the major finding statement and four underlying sub-finding statements. Accordingly, the review of the literature begins with a discussion of the theoretical underpinnings of the concept of experiential learning and the chapter is subsequently divided into five additional sections that are congruent with the finding statements: Experiential learning and the readiness it inculcates; exposure as a readiness factor; college and career planning that results from hands-on learning; and learning readiness as a product of hands-on learning.

Review Process

Many searches were activated using the Ruth A. Haas library at WCSU database online. One example of a typical search was as follows. A search was conducted via the EBSCOhost interface using the search terms "college and career readiness" and "exposure" and "experience" which elicited 343 full text articles. In order to narrow the search, the researcher added a date limiter to identify articles published in the last seven years, from 2010-2017 and this reduced the number of articles to 291. The publish dates were further narrowed to a date range from 2013-2017, the last five years. The search was changed to "college and career readiness" and "exposure" and "experiential learning" with the same date limiter and zero articles were identified. Adding the phrase "experiential learning or experiential education" to the original search terms, "college and career readiness" and "exposure," limited the literature base to 29 articles which then expanded to 210 articles by inputting the search terms "college and career

exposure." From that list, articles were identified that had salience to this study and Tables 1, 2, 3, 4, 5, and 6 provide an overview of the articles with the most relevance in each section.

Literature

Theoretical Background

This section focuses on literature related to the concept of hands-on learning and how it supports the perceptions of participants about its impact on their readiness. The literature concerning college and career readiness tends to focus first on the preparatory deficiencies of high school graduates reported by the higher education community or employers and second on finding the elusive meaning of readiness. Several large studies (Bentley University, 2014; ConnectEd: The California Center for College and Career, 2012; Greenberg & Nilssen, 2015) investigated the problem through the lens of workforce preparedness and/or college readiness using large sample surveys of various stakeholders or government data about the workforce. Here, the researcher accessed a small sample size in a phenomenological study that endeavored to answer the research question—What are the perceptions of high school graduates who engaged in experiential learning regarding their readiness for college and career?—through qualitative interviews. The findings that emerged through this phenomenological approach were validated by the literature that follows regarding how readiness can be fertilized by an experiential learning experience in high school.

The literature review in this chapter is organized by the finding statements that emerged from a phenomenological analysis of the data starting with an overview of the major experiential learning theorists, proceeds to the major finding statement, and then continues to the four sub-finding statements (Figure 1). Table 1 depicts the theorists (Bandura, 1986; Dewey, 1938; Kolb, 1984; Vygotsky, 1978) reviewed from the literature at the beginning of the chapter. The ideas

discussed by important theorists provided the underpinnings for the literature that addressed experiential learning. Also briefly discussed in the theoretical background section are the key concepts of College and Career Readiness and Personalized Learning.

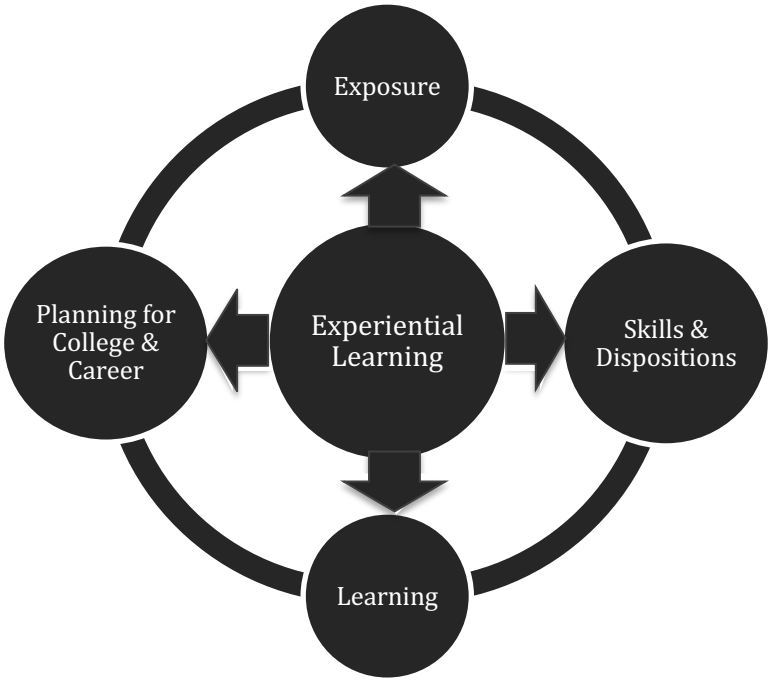

Figure 1. Theories/Research Reviewed in Chapter Two: Review of the Literature

Figure 2 lists the major works and researchers cited in Chapter Two for each of the finding statements. Following the section that discusses preeminent experiential learning theorists and key concepts, the review focuses on the major finding statement that emerged from the data. Experiential learning literature will be further reviewed in the Exposure section that addresses the first sub-finding statement. The four sub-finding statements are subsumed within the major finding statement – Participants in a hands-on learning experience perceived themselves as being more ready for college and/or careers then if they had remained exclusively in a traditional high school setting.

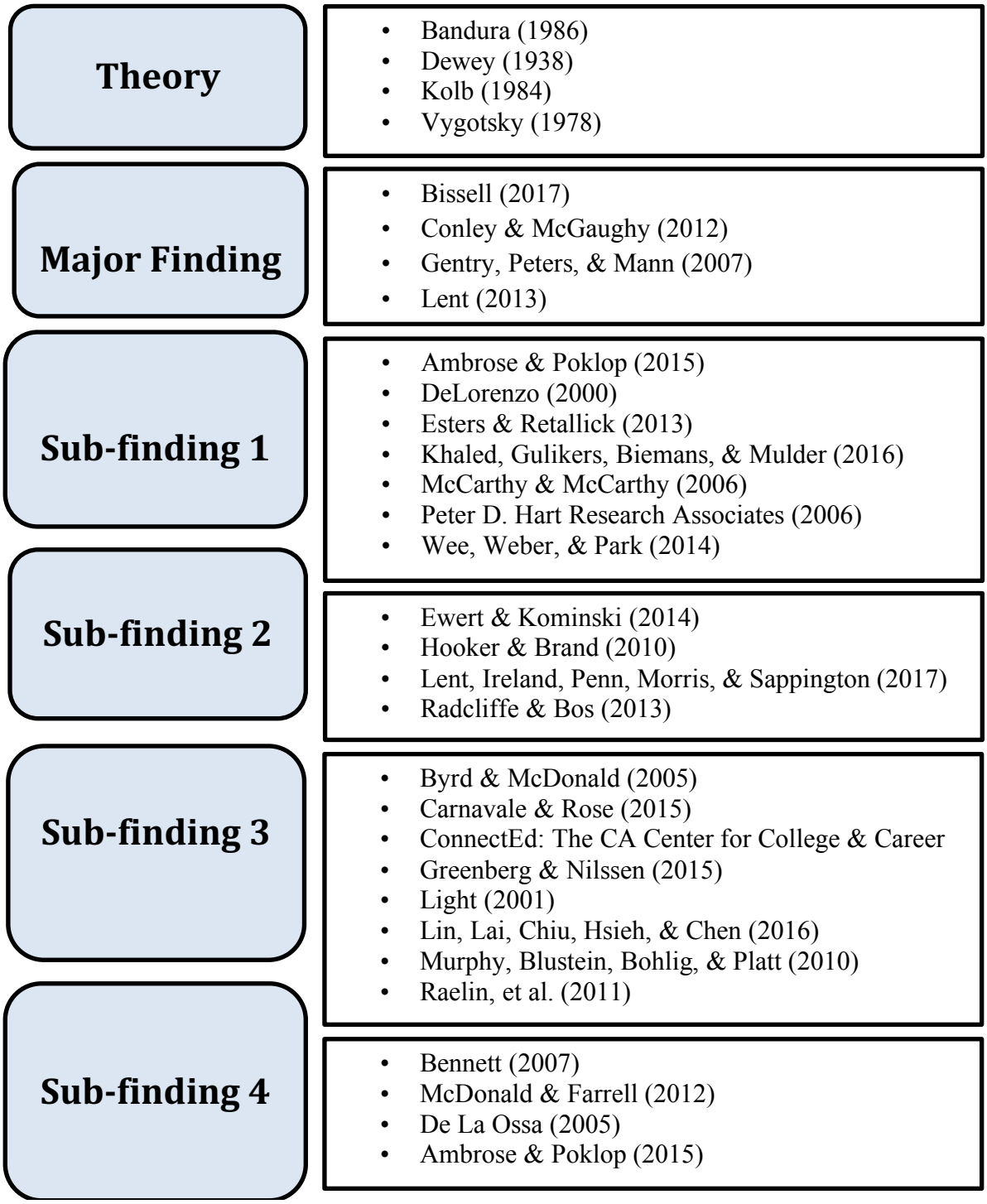

Figure 2. Researchers Cited for Each Finding Statement Reviewed from the Literature

After the major finding statement section, the review proceeds with a new section titled, Exposure, and it is devoted to a discussion about the literature related to the first sub-finding statement: Participants perceived an enhanced level of readiness as a result of the exposure they encountered. Exposure gave them a familiarity with their focus area that resulted in confidence and engendered a sense of purpose. This section is divided into subsections that address the themes that emerged from the data: Experience, Experiential Learning, Hands-on Experience, Exposure Itself, Learning What One Wants to Do, Confidence, and Real World.

Next, the review discusses literature related to sub-finding statement 2, Participants perceived that their hands-on learning experience facilitated college and career planning, confirmed career choices and decisions, and led to confidence in career paths − under the heading, College and Career Preparation. This section is divided into subsections that address themes that emerged from the data, namely, Career Field and Career Planning, College, Licensing, and Preparation.

What follows in the next section is a discussion of the literature related to sub-finding statement 3 under the heading of Skills and Dispositions: Participants perceived that they developed valuable work dispositions that were applicable to college and career experiences like social skills, time management, and an ability to make friends. This section is divided into subsections that address several themes that emerged from the data: Soft Skills, Time Management and Balance, Work Dispositions, and Social Skills.

The final section discusses literature related to sub-finding statement 4 under the heading of Learning: Participants perceived that the non-traditional experiential nature of hands-on learning, coupled with supportive teachers, led to readiness skills such as useful study habits that could be applied to their new college and/or career settings. This section includes subsections

that address the major themes that emerged from an analysis of the data: Choice, Supportive Teachers and Adult Support, Study Skills, and Learning Itself.

Table 1 lists some of the key literature related to experiential learning theory that is discussed in the section that follows.

Table 1

Experiential Learning Theory

Citations	Purpose	Sample/ Methods	Findings/Outcome
Bandura, A. (1989)	Bandura is best known for his social cognitive theory and his extensive writing about self-efficacy and what causes one to make decisions. For this study, his thinking about the precursors to decision making is most salient, what he calls "the mechanisms through which personal agency operates within the interactional causal structure" (Bandura, 1989, p. 1175).	N/A	N/A
Dewey, J. (1916)	One volume of a series of lectures/writings on the purposes of education. Dewey is the father of the American education system.	N/A	N/A
Dewey, J. (1938/2015)	A later volume in Dewey's writings that focuses on the importance of experience in education.	N/A	N/A
Kolb, D. A. (1984)	Kolb's work is arguably the most important and most referenced work when it comes to experiential learning.	N/A	N/A

(continued)

Table 1

Experiential Learning Theory

Citations	Purpose	Sample/ Methods	Findings/Outcome
Vygotsky, L. S. (1978)	Vygotsky coined the phrase "zone of proximal development" that refers to the fertile threshold between frustration and learning whereby learning and growth are realized.	N/A	N/A

The major theorists regarding experiential learning will now be discussed. At the end of the review of theoretical literature are two subsections that address key concepts that relate to experiential learning under the headers, College and Career Readiness and Personalized Learning.

The connection between learning and experience has long been discussed by education philosophers including the American education originator, John Dewey. Dewey (1916) wrote eloquently on the subject in his important tome, Democracy and Education. He clarified his ideas in a later, shorter book titled, Experience and Education, written in 1938, and it is a good place to begin this literature review. It is of interest to educators today that Dewey (1938) argued vigorously about learner motivation, one of the same issues being discussed by the likes of Daniel Pink (2009). Pink (2009) wrote in his popular book Drive, the Surprising Truth About What Motivates Us, about the idea that we take for granted the importance of intrinsic motivation and that we overemphasize – to the detriment of learners – extrinsic motivation that initially is a powerful motivator but weakens the drive of learners over time. Interestingly, Dewey (1938) posited on the very first page of the first chapter that traditional education "is a

process of overcoming natural inclination and substituting in its place habits acquired under external pressure" (p. 17). He further explained that

> as an individual passes from one situation to another, his world, his environment, expands or contracts. He does not find himself living in another world but in a different part or aspect of one and the same world. What he has learned in the way of knowledge and skill in one situation becomes an instrument of understanding and dealing effectively with the situations which follow. (Dewey, 1938, p. 44)

Kolb (1984) connected three major theorists about learning − in particular, experiential learning, namely Dewey (1916/1938), Lewin (1935), and Piaget (1936), − and provided an overview of each theorist's position on the development of knowledge through experience in chapter two of his landmark book, Experiential Learning: Experience as the Source of Learning and Development. Kolb (1984) took issue with traditional theories of education and asserted an experiential learning theory that "ideas are not fixed and immutable elements of thought but are formed and re-formed through experience" (p. 26). Instead, he posited that learning happens when experiences upend what might be expected as usual by the learner; it is a change from what is familiar or habitual. "The fact that learning is a continuous process grounded in experience has important educational implications. Put simply, it implies that all learning is relearning" (Kolb, 1984, p. 28). That is, all bring to bodies of knowledge an understanding of those bodies of knowledge no matter what the primitiveness or sophistication of that understanding may be. Interaction with knowledge is influenced by what is known about a particular topic and the integration of numerous layers of experience and understanding. Thus, "to learn is not the special province of a single specialized realm of human functioning such as cognition or perception. It involves the integrated functioning of the total organism – thinking, feeling,

perceiving, and behaving" (Kolb, 1984, p. 31). The conjunction of all facets of experience contributes to learning and learning is not merely isolated to that which happens in the classroom. Learning results from the conglomeration of the cognition that occurs of and between book learning and learning from experience. Or, as Kolb (1984) described it, "Learning, the creation of knowledge and meaning, occurs through the active extension of and grounding of ideas and experience in the external world and through internal reflection about the attributes of these experiences and ideas" (Kolb, 1984, p. 52).

Kolb described three developmental stages: acquisition, specialization, and integration. While all three stages impact learning and development, the most relevant to the current study is the second stage, specialization, because "this stage extends through formal education and/or career training and the early experiences of adulthood in work and personal life" (Kolb, 1984, p. 42). The specialization stage is of most interest to the current study because it dealt with early adulthood and the "early experiences of adulthood in work and personal life" (p. 142) where career interests take shape and solidify. Kolb (1984) discussed how individuals interact with the world and find their vocational identity through those interactions. Experiential learning theory concerns the idea that young people establish their career identity through experiences that cross over Kolb's developmental stages, each experience building on the next one and leading to new growth, deeper knowledge, and greater confidence.

Vygotsky (1978) postulated that one must consider the potential development of children not just their current level of development. He rejected theories that placed development in fixed stages like those suggested by Piaget (Bransford, et al., 2000). Instead, Vygotsky proposed the idea of the zone of proximal development that he described in the following manner:

> It is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (as cited in Gauvain, & Cole, 2005)

Vygotsky's ideas are particularly salient because he aptly described how learning is incremental and that it progressively builds upon successive experiences. For this reason, Vygotsky (1978) is cited frequently by education researchers (for example see Bruner, 1984; Conley, 2013; Tudge, 1992). It is important for educators to consider Vygotsky's ideas because keeping students engaged requires their teacher to neither under-challenge them nor over-challenge them. Rather, the idea is to locate the zone for each student whereby they encounter an appropriate level of cognitive dissonance (Hinojosa, Gardner, Walker, Cogliser, & Gullifor, 2016) to keep them moving forward in their learning.

Bandura (1989) discussed the impact that a person's self-efficacy has on decision making and in successful completion of tasks. Most applicable here is his notion of self-efficacy as it relates to career choices and college major choices. That is, Bandura (1989) theorized about how positive perceptions of self-efficacy lead to perseverant behavior – sometimes colloquially referred to as stick-to-itiveness or grit (Duckworth, 2016). His eloquent descriptions of resilience and perseverance were no less than prescient, pre-dating the focus on the topic that is currently in vogue. More importantly, Bandura (1989) discussed "the mechanisms through which personal agency operates within the interactional causal structure" (p. 1175). In layman's terms, experiences and exposures give rise to the determinism that young people have about their college and career choices.

College and Career Readiness

Aside from the general discontent often cited in popular media that our graduates are not ready for post-secondary study or employment after high school, there is ample literature that illustrated why readiness was a topic that needed attention (ConnectEd: The California Center for College and Career overview, 2012). Perry and Wallace (2012) provided an overview of the historical development and context about readiness and what it suggests to education policy makers. Many students graduating from high school may not be ready for college study but what is even more troubling is that our college graduates may face dim prospects for employment when they finish their degrees (Perry & Wallace, 2012) because there are other skills that are necessary for success. The path to economic prosperity appears to be about more than just academic readiness. It may require other skills necessary for success in both college and careers. In order to better prepare high school graduates for what they face after graduation, some states have instituted programs that provide "multiple pathways to success" (Perry & Wallace, 2012).

Personalized Learning

In fact, there are programs across the country which have successfully implemented unique preparatory programs ranging from military partnerships to fostering collaboration for Common Core success. It has been established that a personalized learning plan in high schools is important and that while there were different iterations of personalized learning across the country, the following elements are important to include: "1. Make it a student-driven, schoolwide effort. 2. Offer online tools. 3. Recognize that personalized learning is a long-term process" (Barton, Hodara, & Ostler, 2015, p. 51). Also notable was that students, teachers, and parents believed that personalized learning improved nonacademic skills such as communication and goal setting, long-term planning, motivation, and self-confidence (Barton, Hodara, & Ostler,

2015). Others pointed to readiness as including dispositional traits such as engagement in the community, relationship building, and the following of one's passions and interests (Harild & Sharratt, 2015). Personalized learning required the input of students because it was a means of authenticating their own choices and giving them ownership (Harild & Sharratt, 2015).

Now that the theoretical underpinnings of experiential learning have been reviewed, the next section will address the major finding statement that emerged from the data analysis and is focused on the literature about hands-on learning.

Major Finding Statement - Hands-on learning

This section focuses on the literature related to the major finding statement that participants felt more ready to face college and/or a career because they participated in a hands-on learning program in high school. Table 2 illustrates some of the key literature related to the major finding statement that participants found their experiential learning experiences led to a perception of increased readiness.

Some students may have learned the dispositions (referred to elsewhere as soft skills) necessary for success through experiential learning experiences. One of the ways that students can become better prepared for post-high school life is through experiential learning (Gupta, 2013) because it represents a better preparatory experience and increases student engagement (Southern Association of Colleges, 2013). Kolb (1984), who cited Dewey (1938) and other originators of the construct of "learning by doing," provided the most comprehensive theoretical underpinnings of experiential learning. In essence, experiential learning serves as an authentic context for academic learning whereby the learner solidifies understanding through experience. An excellent overview of recent literature related to experiential learning or "learning by doing," was provided as a frame for Texas Woman's University's Quality Enhancement Plan (Southern

Association of Colleges, 2013). The Southern Association of Colleges (2013) explained that "most employers, as well as recent college graduates, believed students needed to balance general education with knowledge and skills in a specific field" (p. 27). While the focus of this article was on collegiate learning-by-doing experiences, there was useful information there that is applicable to secondary programs as well.

Table 2

Key Articles Related to Major Finding Statement − Hands-on Learning

Citations	Purpose	Sample/Methods	Findings/Outcome
Bissell (2017)	To explore the perceptions of recent high school graduates about readiness and what they may have been lacking when they began their post-secondary trajectories relative to the Career Awareness Program (CAP).	Qualitative; semi-structured interviews of participants (n = 10) who had graduated three years prior using Consensual Qualitative Research method.	Participants found that they were highly engaged in their college and career readiness skills because of their interactions with adults, connections with their interests and abilities, and job exposure.
Lent (2013)	To present an overview of SCCT and how it relates to a rationale about facilitating student college and career readiness through a systematic approach throughout schooling to career and college planning and goal setting.	N/A	Work experiences should be part of students' overall experiences that include career planning and goal setting. Work exposure has value by itself but that value is enhanced by continual and intentional career and college experiences and exposure starting in elementary school.
Gentry, Peters, and Mann (2007)	To explore the perceptions of gifted students compared with general students who were enrolled in a CTE program for half of their day and a traditional program for the other half; to discover effective solutions for educating both general and talented students.	Qualitative semi-structured interviews, (n = 51) in 9 different focus areas; 16 students were identified as talented.	Students perceived their CTE experiences positively; four themes emerged: autonomy, caring teachers, other students with similar interests, and learning relevant content in an interactive, applied setting; participants felt more ready thanks to their CTE experience, more engaged in their learning, and thrived because they felt they were doing real-world, adult things.

(continued)

Table 2

Key Articles Related to Major Finding Statement − Hands-on Learning

Citations	Purpose	Sample/Methods	Findings/Outcome
Conley and McGaughy (2012)	To advocate for schools to incorporate career planning and exposure throughout their school careers, not solely a senior year internship, but as early as elementary school.	N/A	Students benefit from exposure and career planning because they help to develop "college knowledge."

According to a qualitative study that sought to find out the perceptions of recent high school graduates about readiness and what they felt they were lacking as they embarked on their post-secondary experiences, students benefitted from having experiences and exposure to the college milieu because these experiences led to better preparedness and a smoother transition (Bissell, 2017). Conley & McGaughy's (2012), Four Keys to College and Career Readiness, that included four key areas of preparedness: cognitive strategies, content knowledge, learning skills and techniques, and transition knowledge and skills, was used as a framework by Bissell (2017). The qualitative interview study involved short, semi-structured interviews of a sample (n = 10) of Class of 2013 graduates from Greensburg Salem High School in Pennsylvania to ascertain "how GSHS students acquired the skills, knowledge, and behaviors, associated with CCR; how the college and career programs at GSHS contributed to graduate transitions to college or career; and the struggles graduates had in their post-high school transitions" (Bissell, 2017, p. 28). Using the Consensual Qualitative Research method (CQR), the researcher examined the role the Career Awareness Program (CAP) played in preparing graduates using an interview protocol that was developed by Hill, Thompson, and Williams (1997). Participants in the study had increased levels of engagement in college and career readiness skills as a result of their hands-on learning

experiences (Bissell, 2017). Participants credited their interactions with adults, connections with interests and abilities, and job exposure as leading to a more robust engagement with their chosen career paths and resulted in higher levels of perceived readiness.

In order to be prepared, individuals needed to develop a necessary resilience to the present volatile and unpredictable career environment in the work world (Lent, 2013). Lent (2013) wrote with a particular focus on his social cognitive career theory (SCCT). Preparing students long-term for the transition from school to work can involve a systematic approach to career development and start as early as elementary school (Lent, Hackett, & Brown, 1999). Work experiences can be built into the school experience of students as part of a continuum of preparatory exposure within the SCCT framework that would lead to more successful transitions once they entered into the work world (Lent, Hackett, & Brown, 1999). Success breeds success in young people who have mastery experiences along the way to their career fields (Lent, Hackett, & Brown, 1999). That is, confidence is boosted through successful work experiences that in turn tend to lead to later successful work experiences, confidence in career choices, and increased self-efficacy.

In one hands-on model CTE program in Texas, students split their time between a traditional high school schedule and a CTE experience (Gentry, Peters, & Mann, 2007). A comparison was made in the study between general education students and talented and gifted students who participated in a CTE program to qualitatively ascertain their perceptions of the CTE program in which they participated versus the traditional course of study in which they were simultaneously enrolled (Gentry, Peters, & Mann, 2007). According to the authors, participants viewed the CTE experience positively and the traditional experience negatively. A total of 51 students were interviewed using a semi-structured interview protocol of a sample

gathered from 9 different focus areas with 16 of them identified as talented. Interview transcripts were then transcribed and coded using phenomenological procedures. Four themes emerged from the coding procedure:

> Student autonomy (the ability to choose courses and determine the order or type of assignments, to self-pace the curriculum, and to experiment with a profession); effective, caring teachers (teachers who had high expectations, sought students' strengths, showed personal interest in students, and had professional experience); other students with similar interests (classmates who demonstrated mature and committed behaviors, showed interest in their course of study, and participated in Career and Technical Student Organizations [CTSOs]); and learning relevant content in an interactive, applied setting (an environment that offered curricular connections to the profession, hands-on learning, and professional treatment of students in a job-like setting). (Gentry, Peters, & Mann, 2007, p. 382)

Participants felt more engaged in their learning because that learning was hands-on and in a workplace environment (Gentry, Peters, & Mann, 2007). They also thrived because they felt they were learning real-world, adult things that had application to the work they would eventually be doing. Moreover, participants benefitted from the support of caring adults who showed an interest in them personally.

It is now a necessity for secondary schools to focus on college and career readiness for all students; the days separating the two pathways are over (Conley & McGaughy, 2012). One of the ideas proposed was that high schools facilitate career planning and exposure throughout students' school careers. While students should not be expected to have an explicitly defined career plan, they should at least have a career goal that can be mutable. Another suggestion was that high school students should be encouraged to seek out work experiences or internships and

that schools have a responsibility to offer students opportunities that build "college knowledge" (Conley & McGaughy, 2012, p. 33). Thus, hands-on learning can also conceivably include dual-enrollment courses and bridge programs that expose high school students to the post-secondary environs that are on their horizons.

Exposure

This section focuses on the literature that supports the first sub-finding statement that participants in the hands-on learning program at CTI received valuable exposure to college and/or career experiences that led to familiarity with their focus area, confidence in their chosen field, and a sense of purpose in their pathway choices. Table 3 includes key articles related to the first sub-finding statement that is principally focused on exposure through experiential learning.

Table 3

Key Articles Related to Exposure

Citations	Purpose	Sample/Methods	Findings/Outcome
DeLorenzo (2000)	To determine the effect of a co-op or internship experience on career decision-making and career self-efficacy.	*n* = 415 undergraduate students; three survey instruments administered: CDMSE-SF, CDLC, and CWEQ; quantitative study.	Participants who participated in a co-op scored higher on the respective scales of self-efficacy than those who did not participate.
Esters and Retallick (2013)	To explore the effects of a 15 week experiential learning program called Science With Practice (SWP) on career decision self-efficacy, vocational identity, and career maturity.	*n* = 62; exploratory case study design, pre- and post-test quantitative.	The SWP had a significant effect on career decision self-efficacy and vocational identity but no significant effect on career maturity.

(continued)

Table 3

Key Articles Related to Exposure

Citations	Purpose	Sample/Methods	Findings/Outcome
Khaled, Gulikers, Biemans, and Mulder (2016)	The authors endeavored to develop "self-regulated learning" (SRL) in participants whose experiences engendered autonomy, self-direction, a realistic understanding of the workplace, and ultimately the transfer of skills learned in training to the workplace.	Qualitative observations. Two non-participating researchers observed the simulations using "powerful validated schemes" from an instrument called "Powerful Vocational Learning Environments."	There was variation in the amount and quality of self-regulated learning (SRL) during simulated learning experiences and that there was room for improvement in both the teachers' strategies for promoting SRL and in the actual SRL behaviors that participants exhibited. SRL behaviors were present in the simulations confirming that they are useful in cultivating SRL.
McCarthy and McCarthy (2006)	To compare college business students' perceptions of studying case studies versus participating in job shadowing.	$n = 68$ undergraduate students in a business communications course; survey instrument used; paired sample *t*-tests.	A significant percentage of participants preferred job shadowing over case studies ($p < .05$; $p = .037$).
Ambrose and Poklop (2015)	To investigate co-op students' perspectives of their learning.	Phenomenological study of college seniors who completed 1-3 years of co-op experience, $n = 104$; semi-structured interviews.	Co-op employment extends and supplements the academic curriculum; it extends the curriculum through relevance and it supplements the curriculum by helping students extend what they've learned; increase motivation; facilitate practice and feedback; promotes transfer of understanding that leads to deep and flexible learning; encourages self-directed learning.

(continued)

Table 3

Key Articles Related to Exposure

Citations	Purpose	Sample/Methods	Findings/Outcome
Peter D. Hart Research Associates (2006)	To ascertain the perceptions of recent college graduates about what colleges should be emphasizing to best prepare students for the work world.	Qualitative study utilizing interviews *n* = 510 graduates and *n* = 305 employers. Focus groups (3) of business executives.	Employers and students agreed that colleges should emphasize a more hands-on approach; 73% of recent graduates felt that an increased emphasis on hands-on learning where students can apply skills and knowledge was important.

Experience

The relationship between cooperative education experiences and career decision-making self-efficacy and career locus of control was established in a study by DeLorenzo (2000). There were 415 college level students in the study that was comprised of three survey instruments: Career Decision-Making Self-Efficacy Scale – Short Form (CDMSE-SF), the Career Development Locus of Control (CDLC) Scale, and a Career-Work Experience Questionnaire that was created by the researcher. The researcher found that work experience had a significant effect on career decision making self-efficacy ($p = .049$) but did not find a significant difference between the internal locus of control between students who participated in a co-op and those who did not. The researcher used a test of two proportions and found that .91 of the co-op participants had an internal locus of control and .88 of non-co-op participants had an internal locus of control. It was further found that "49.3% of the students in the non-co-op (related) work experience group indicated that an internship…was the single most significant work experience acquired during the college years" (DeLorenzo, 2000, pp. 20-21). It was found that it mattered that undergraduates who participated in the study worked in a co-op experience that was related

to their course of study (and it mattered if it did not relate) because the unrelated co-op participants had lower CDMSE scores than the related ones. The findings also suggested that "students who seek greater work experience satisfaction could benefit considerably by pursuing either co-op or internship (non-co-op) work experiences" (DeLorenzo, 2000, p. 21).

Experiential Learning

Three concepts that were impacted by an experiential and work-based learning program called Science with Practice (SWP) were identified (Esters & Retallick, 2013). The three concepts were labeled, Vocational Identity, Career Decision Self-Efficacy, and Career Maturity. This study included a sample of college-level students, most of whom were upperclassmen; so, it could be argued that it is limited in terms of transferability to a high school population. However, the findings identified the value of exposure to career-based experiences in helping young people establish what career paths they will follow. Namely, their "findings suggest that an experientially-based learning and work program had a positive effect on career decision self-efficacy and vocational identity" (Esters & Retallick, 2013, p. 76). Moreover, the study suggested that "experiential learning programs actively engage students, enabling them to observe and experience linkages between classroom theory and the world of work and careers" (Esters & Retallick, 2013, p. 77).

The Esters and Retallick (2013) study utilized a case study research design that included a sample of 62 undergraduates who were enrolled in the Science with Practice (SWP) curriculum that was used as the treatment. They sought to find out the effect of the SWP on three areas at the center of their inquiry: Vocational identity, career decision self-efficacy, and career maturity. A variety of pre- and post-assessment instruments were used to measure effect sizes: The Vocational Identity Subscale (VIS) of the My Vocational Situation scale to measure

vocational identity; the short form of the Career Decision Self-Efficacy Scale to measure career decision self-efficacy; and The Attitude scale (Screening Form A-2) of the Career Maturity Inventory to measure career maturity. The authors' findings indicated significant differences in the pre- and post-assessment results for career decision self-efficacy (t = -5.134, p < .05) and vocational identity (t = -4.926, p < .05) but no statistically significant difference between the pre- and post-assessment scores for career maturity (t = -1.731, p > .05). "Most importantly, findings suggested that an experientially-based learning and work program had a positive effect on career decision self-efficacy and vocational identity" (Esters & Retallick, 2013, p. 76) because young people are exposed to workplace mores and expectations that they might not otherwise experience. Similarly, in this instance experiential learning endeavored to create a nexus between abstract classroom theory and the concrete reality of the real world because "experiential learning programs actively engage students, enabling them to observe and experience linkages between classroom theory and the world of work and careers" (Esters & Retallick, 2013, p. 77). Overall, the authors concluded that participants who had a solid vocational identity tended to have clarity about their own personal dispositions, what they were good at, what they were interested in, and were able to establish solid goals in terms of their careers (Esters & Retallick, 2013).

Hands-on experience

Hands-on simulations instituted in an undergraduate program in the Netherlands was discussed by Khaled, Gulikers, Biemans, and Mulder (2016). Their approach was decidedly constructivist as opposed to a more traditional hands-on learning experience approach. In fact, the hands-on experiences that participants were given were realistic, live replicas of workplace environments given to vocational or professional college students. In so doing, the authors

endeavored to develop "self-regulated learning" (SRL) in participants whose experiences engendered autonomy, self-direction, a realistic understanding of the workplace, and ultimately the transfer of skills learned in training to the workplace. The study produced data from eight simulated learning experiences that were guided by teachers and were focused on students one or two years out of secondary school. Two non-participating researchers observed the simulations using "powerful validated schemes" from an instrument called "Powerful Vocational Learning Environments" (Khaled, et al., 2016, p. 108). The qualitative procedures for data analysis required observers to look for the frequency and duration of observed behaviors according to the self-regulated learning scheme phases, assess the quality of the observed self-regulated behaviors using a researcher-based formula, and finally having a researcher independently evaluate the quality of the observed behaviors based on observational data and debriefing notes. The researchers found that there was variation in the amount and quality of SRL during the simulated learning experiences and concluded that there was room for improvement in both the teachers' strategies for promoting SRL and in the actual SRL behaviors that participants exhibited. Still, they confirmed that SRL behaviors were present in the simulations confirming that they were useful in cultivating SRL.

Exposure itself

Former Secretary of Education, John King (2016), described his overall vision of what a well-rounded education should be and should look like including his pronouncement that "students are better able to read a text when they have had exposure to the knowledge and experiences that are referenced in that text" (p. 4). Kolb (1984) talked about the specialization stage of his theory of human development whereby the learner hones in on a specific career focus as the result of exposure to career-related experiences. This stage is where there is a true

intersection between a student's formal education and early work experiences whereby career interests start to gel. It is at this stage when young people begin to "make choices that will significantly shape the course of their development…[that] tend to have an accentuating, self-fulfilling quality that promotes specialization" (Kolb, 1984, pp. 142-143). More specifically to college readiness, high school students, particularly underprivileged ones who may be first-generation college attenders, need exposure to post-secondary experiences in order to develop what Hooker and Brand (2010) term "college knowledge" (p. 77). College knowledge is an understanding of not only what it takes to apply for and finance college, but also what constitute the differences between secondary culture and post-secondary culture. That is, students are more likely able to succeed in college if they have exposure experiences to post-secondary realities during high school that give them a true understanding of what college is like. "Youth need early opportunities to complete college-level work, navigate college campuses, and understand how the structures, opportunities, and demands of higher education differ from those of high school" (p. 78).

Simply exposing students to what college is like can be an important aspect of college readiness because it gives students a sense of what to expect. For example, several partnerships that connected high school students with local community colleges that gave them important exposure to the demands of college coursework and challenges of college life in general were highlighted by Pierce (2016). Frequently, exposure occurred when high schools partnered with community colleges and offered students dual-enrollment opportunities such as those described by Vargas, Hooker, and Gerwin (2017). Dual-enrollment programs can help diminish the high percentage of college non-completion rates, can help more students graduate high school, and can help more students enroll in college (Vargas, Hooker, & Gerwin, 2017). Moreover,

exposure to post-secondary experiences eased the transition from high school to college, instilled in young people a vision of themselves as successful college achievers, and opened doors of opportunity that may not have been open without exposure experiences (Vargas, Hooker, & Gerwin, 2017).

The idea of the practical value of exposure experiences holds true for workplace exposure as well because it gives students opportunities to "apply their knowledge and practice their skills in authentic, real-world situations, with all the contextual idiosyncrasies and unpredictability that entails" (Ambrose & Poklop, 2015). A similar case was made for university business students who by and large are not required to have experiential learning experiences; however, some voluntarily chose to participate in internships when convenient (McCarthy & McCarthy, 2006). By and large, business students were exposed to career-related scenarios through case studies in the classroom setting. It was argued that universities should require students to have exposure experiences such as a structured job shadowing that includes a reflection paper at the end (McCarthy & McCarthy, 2006). To support this contention, a study was conducted using junior-level business communications course students as participants who were charged with collecting survey data from people who were employed in a position in the business field who they were shadowing and then writing a paper and presenting their findings. Student participants served as the sample (n = 68) and were then surveyed at the end of the semester about their experiences to help answer a research question that compared the students' perceptions of studying case studies versus participating in job shadowing. Their professors conducted paired samples t-tests of the data from these surveys and compared case studies and job shadowing and found a significant difference ($p < .05$) between them ($p = .037$) indicating a significant percentage of participants preferred job shadowing over case studies (McCarthy & McCarthy, 2006). Certainly, the study

had limitations because the sample size was small (less than 100) and the sample was drawn from three sections of a business communications course at a small state university. However, it made the case for a larger study where broader inferences could be made.

Learning What One Wants To Do

Exposure to workplace venues can give young people a realistic understanding of what the work entails. A realistic workplace understanding was illustrated in a case study about Maria, a student who engaged in experiential learning during high school in the health care services field (Darche & Stam, 2012). Maria confirmed her career choice through authentic work exposure through an internship at a local community hospital. She reported that working with real patients made her realize that she could not waste time and it also gave her a sense of responsibility and importance that would not be replicable in a traditional classroom setting (Darche & Stam, 2012).

Extensive research and extensive writing about social cognitive career theory (SCCT) as it relates to career decision-making, career self-efficacy, career interest, and so forth has been written about by Robert Lent who has collaborated with numerous other scholars (Brown, Lent, Telander, & Tramayne, 2011; Lent, 2013; Sheu, Lent, Brown, Miller, Hennessy, & Duffy, 2010). For example, the theoretical underpinnings of SCCT, particularly as they relate to the context of the school to work transition, was discussed by Lent, Hackett, and Brown (1999). Their work was largely built upon the work of Bandura (1986) and his extensive writing about self-efficacy that supported his model of social cognitive theory. The transition between school and work was not represented by a thin line demarcated by a singular graduation event (Lent, Hackett, & Brown, 1999). Rather, it was contended that career development in individuals was a gradual process that happened over time throughout a young person's development and as an element of

his/her schooling experience starting in elementary school. "The most robust source of self-efficacy beliefs is personal mastery experience; successful performance enhances self-efficacy which, in turn, raises the probability of future effective performance; failure experiences tend to diminish self-efficacy" (Lent, Hackett, & Brown, 1999, p. 299). Other facets of the process that led to career self-efficacy were also detailed. For example, the establishment of career interests in the first place, the connection between learned skills related to career interest, social skill development as it relates to the workplace (Lent, Hackett, & Brown, 1999) and so forth were identified.

Confidence

Exposure experiences gave students confidence because these experiences provided relevance to what was previously abstract, they were authentic or real world experiences, and they allowed for the application of knowledge learned in coursework (Ambrose & Poklop, 2015). Accordingly, Northeastern University in Boston has instituted co-op experiences in their academic program because the school culture has embraced the benefits of hands-on learning. Many benefits were reported that included "increased confidence" (p. 55) in its student participants (Ambrose & Poklop, 2015). Similarly, early childhood education students' confidence levels changed after participating in a practicum experience (Wee, Weber, & Park, 2014). The researchers cited Bandura's (1986) theory where he equated one's perceived ability to be successful in a particular area with one's motivation to succeed. Instead of confidence they referred to "self-confidence" and described it "as having trust in one's self, clear knowledge of one's strengths and limitations and assurance of one's ability to handle a variety of situations" (Wee, Weber, & Park, 2014, p. 411). A mixed methods approach was used where participants filled out a series of questionnaires at three points during a 15-week course as a quantitative

measure and then complemented the data with three qualitative interviews of 10 of the participants. The sample was made up of 40 female participants with an average age of 27.5 years who were all enrolled in an undergraduate program in early education. The questionnaire was comprised of 44 questions that were designed to address the six areas of the practicum experience: (a) Arranging the physical environment; (b) Understanding and interacting with children; (c) Guidance and managing children's behavioral issues; (d) Planning and implementing activities; (e) Working with other staff in the classroom; and (f) External factors (p. 413). Once the data were gathered, the researchers conducted an ANOVA of the results in order to determine whether there was a significant change in confidence between the beginning, middle, and end of the practicum. A *t*-test was also utilized to compare the results of experienced participants and inexperienced participants. Interviews were transcribed, read multiple times, and coded by the researchers in order to discover themes and deepen their understanding of participant perceptions. Results in all six areas being studied showed significant increases in participant confidence over the course of the practicum experience in all areas except guidance and managing children's behavioral issues; but the focus here will be on overall confidence. While overall confidence levels appeared already generally high at the beginning of the semester ($M = 4.23$) they still showed a significant ($p < .01$) increase by the end of the semester ($M = 4.54$) as a result of the practicum experience. The researchers also found that certain factors positively influenced confidence levels including reflective activities and supportive supervising teachers. Finally, while experienced participants (those who had exposure to classroom teaching previously) entered the study with higher confidence levels than inexperienced participants, they both increased in confidence over time and by the end of the study there were no significant differences between them in terms of confidence levels.

Real World

Kolb (1984) himself decried the absence of experiential learning in schools where "the wider 'real-world' environment at times seemed to be actively rejected by educational systems at all levels" (p. 34). By contrast, 30 years later, the real-world, authentic learning that occurred through experiential learning that happened in co-op experiences common at Northeastern University was described by Ambrose and Poklop (2015). They argued that deep learning happened most significantly when learners were faced with real-world situations that enabled them to practice skills in authentic situations where consequences for mistakes did not just mean a lower grade. The participants in Ambrose and Poklop's (2015) study frequently mentioned how the real world application of the knowledge they learned in coursework gave them a deeper understanding.

Interviews of 305 employers and 510 recent graduates of a 4-year college were conducted to ascertain perceptions as to what colleges should be emphasizing in order to most effectively prepare graduates for the work they will face in the work world (Peter D. Hart Research Associates, 2006). The researchers also conducted three focus groups of business executives. What they found was that recent college graduates and business leaders were in agreement that colleges should be emphasizing a hands-on approach to their curricula. "They particularly emphasize the importance of providing students with important knowledge and skills but also experience putting those knowledge and skills to practical use in 'real-world' settings" (Peter D. Hart & Associates, 2006, p. 1). More specifically, the researchers found that 73% of recent graduates believed that an increased emphasis should be placed on providing internships or other hands-on learning that allow students to apply knowledge and skills. Both employers and recent college graduates in the study reported that there should be more emphasis placed on providing

college students with opportunities to use skills and knowledge in real world settings through hands-on learning experiences. Another finding the researchers made was that employers believed it was important for college students to receive exposure to business environments as part of their preparatory experience (Peter D. Hart & Associates, 2006). A similar conclusion about the need for gifted students to be afforded opportunities to enjoy real world, authentic experiences was made by Higgins and Boone (2003). They argued that this component of gifted education is often neglected.

There are motivating factors that are sometimes labeled "predisposition variables" that lead CTE graduates into a 4-year course of study in college, bound for a degree (Hioki, Lester, & Martinez, 2015). Students can benefit from exposure to authentic experiences that relate to potential career interests and develop pre-dispositional motivation. For example, one highlighted participant had motivation to achieve and he was influenced by his participation in a business organization at school. He was drawn to the organization initially when he saw his older brother's involvement but then he related, "Once I was introduced to the program, then it was a huge exposure to careers that are out there. I was excited about business, of being an executive in a corporation, and of the travel and of all the experiences that I had been exposed to from the mentors and the coaches and the people, the alumni that were involved with FBLA" (Hioki, Lester, & Martinez, 2015, p. 19). Before that exposure, this particular young man was not engaged in his academic mission. In fact, a recent survey revealed that most Americans "want to position students for their working lives after school. That means both direct career preparation and effort to develop students' interpersonal skills" (Phi Delta Kappan, 2017, p. k3).

College and Career Preparation

This section will focus on the second sub-finding statement concerning college and career planning and readiness that resulted from a hands-on learning program and the related literature. It will highlight studies that support the sub-finding statement and most prominent themes therein: Career Field, Career Planning, College, Licensing, and Preparation. Table 4 highlights key articles that relate to the second sub-finding statement that deals primarily with college and career planning.

Table 4

Key Articles Related to College & Career Planning

Citations	Purpose	Sample/Methods	Findings/Outcome
Lent, Ireland, Penn, Morris, and Sappington (2017)	To identify what variables affected career decision-making, particularly how career self-efficacy is impacted by experience.	*n* = 324 undergraduates; Quantitative study where participants were given several instruments to measure self-efficacy, outcome expectations, goals, past exploration activities, efficacy-relevant learning experiences, and current level of career decidedness. "A confirmatory factor analysis offered support for a 5-factor representation of the experiential sources…The source variables accounted for a larger portion of the variance in self-efficacy than outcome expectations, with much of their relation to outcome expectations being mediated by self-efficacy" (p. 107).	Students benefit from exposure to peer models and on the development of information-gathering and self-exploration exercises in terms of their career decision-making.

(continued)

Table 4

Key Articles Related to College & Career Planning

Citations	Purpose	Sample/Methods	Findings/Outcome
Hooker and Brand (2010)	To examine the impact of early college programs.	Mixed methods; *n* = 715 grade 9 and 10 students chosen via lottery and divided into control and treatment groups. Qualitative element added where student perspectives of the program and its impacts were explored.	Students who enrolled in the treatment group performed better in math and biology and had better attendance. Students had positive perceptions of their college readiness and their visions of themselves as college-bound.
Ewert and Kominski (2014)	To extract data from a survey related to alternative credentials earned by graduates other than academic degrees that have labor market value.	Survey of Income and Program Participation (SIPP).	Employment and earnings are generally enhanced by people who possess an alternative credential. Those who are credentialed and who are working full time earn higher salaries.
Radcliffe and Bos (2013)	To establish strategies for assisting at-risk students identified in 6th grade to build college and career readiness.	*N* = 31 in treatment group; *n* =50 in control group. Various sources of data: The Goal-setting Worksheet; the PALS survey; mentee self-report surveys; TAKS test; school records. PALS survey administered 3 times and paired t-test analysis conducted.	Students finishing high school face different prospects than previously and benefitted from goals that support preparatory strategies: 1. Understand the nature of college; 2. Recognized that a college education may be important to future success; 3. Gain positive perception and aspirations about college; 4. Prepare academically for college admission; 5. Set short and long-term goals that support becoming college-ready.

Career field and career planning

The literature surrounding career decision making or career self-efficacy as it relates to experiential learning experiences is scant and in need of more development (Lent, Ireland, Penn,

Morris, & Sappington, 2017). The construct of self-efficacy was explored through the lens of a "social cognitive model of career self-management" (Lent et al., 2017, p. 107), vis a vis Bandura's (as cited in Lent et al., 2017) self-efficacy model whose variables had particular relevance to an experiential learning connection: "personal mastery experiences (e.g.,, successes and failures), verbal persuasion (e.g., social encouragement or discouragement), vicarious learning (i.e., observation of models), and physiological and affective states and reactions (e.g., positive and negative emotions associated with performance of particular tasks)" (p. 108). Self-efficacy is defined as "individuals' perceived ability to perform specific tasks necessary for career preparation, entry, or adjustment" (Lent et al., 2017, p. 108). The purpose of the study was to identify what variables affected career decision-making and, among other things how career self-efficacy was impacted by experiences that participants had as precursors to career decision-making. The study featured 324 undergraduate students, 32% of whom were men, 67% of whom were women, and 1% who reported other gender identities. The students came from a range of class years with 88 of them (27%) freshmen. Participants were given several instruments to complete in order to measure "self-efficacy, outcome expectations, goals, past exploration activities, efficacy-relevant learning experiences, and current levels of career decidedness" (p. 110). Respondents completed the various instruments online and the researchers reported that the scales "produced adequate internal consistency" and were distributed "reasonably normally with no outliers" (p. 110). The findings tentatively confirmed (the researchers suggested the need to extend the study and confirm the initial findings) that when it came to career decision-making, college students benefited from exposure to peer models and "on the development of information-gathering and self-exploration exercises that are

likely to be experienced as fun and engaging" (p. 116). The study suggested that career exploration exposure has a correlation to career self-efficacy and career decision-making.

College

Research was presented about creative programs that cultivated what was termed, "college knowledge" and "a college-going identity" (Hooker & Brand, 2010, p. 77). Hooker and Brand (2010) advocated for college readiness skills such as perseverance, grit, and other skills that are indicative of independence and self-reliance and that lead to successful navigation of the college experience. A few programs were described that have been established across the United States that provide high school students with early college experiences that enable them to simultaneously earn a high school diploma and a two-year associates degree (Hooker & Brand, 2010). For example, in 2002, a funding stream was created to support an initiative called the Early College High School Initiative (ECHSI) that targeted "traditionally underrepresented groups" (p. 79) giving them opportunities to experience college campuses, meet college students, and develop a college-going identity that facilitated a successful transition from high school to college. Two other programs with a similar thrust that targeted low socio-economic and otherwise underrepresented groups were also highlighted: The Washington State Achievers (WSA) and the Citizen Schools (CS). WSA featured a mentorship program that provided students with guidance both in high school and in college to help them navigate the college venue and included guidance in the minutiae of the financing and application process. Participants in WSA were more likely to complete prerequisite coursework needed for college admission and were more likely to enroll in college compared to students who did not participate (Baker, Gratama, Stroh, & Scott, 2007). Similarly, in the CS program, there was an emphasis on experiential learning experiences, field trips into the community, and providing coursework

relevance that fostered engagement in participants. The CS program focused on underrepresented groups in middle school and its emphasis was preparing them for high school and post-secondary opportunities. The CS program in Boston participants had a higher level of engagement and academic success than similar non-participating students in a similar demographic and they were more likely to proceed to a high school program that would lead to graduation and post-secondary study (as cited in Hooker & Brand, 2010). Their review of these programs led to recommendations for policy initiatives that support programs that provide middle school and high school students with exposure to college experiences and college venues that lead to a better understanding of the college enrollment process for young people and their families. Programs such as these will also lead to young people envisioning themselves as college students and this, Hooker and Brand (2010) suggested, will lead to increased enrollment in post-secondary study.

Similarly, an innovative idea called *early colleges* that promotes the readiness of high school students through a structured transitional program was discussed by Edmund (2012). The early college idea was similar to the dual-enrollment concept discussed by Hofmann (2012) who suggested that dual enrollment merits more study as a means to address the college non-completion problem. However, the idea of early college takes dual enrollment a step further where students are simultaneously high school students and college students (Edmunds, 2012). She conjectured that students were more ready for college when they were exposed to college venues and developed an understanding of the differences between secondary culture and post-secondary culture. Having early college experiences during high school, as early as 9th grade, cultivated the often underestimated non-academic skills essential to the successful navigation of college. Similar to the programs highlighted by Hooker and Brand (2010), the early college idea

targeted students who had typically been underrepresented in the post-secondary venue. An experimental study was presented that was designed to examine the impact of early college programs prevalent in the state of North Carolina and that is part of a larger longitudinal study (Edmunds, 2012). The sample consisted of 715 ninth and tenth grade students, chosen by lottery, who were divided into a control group that followed the traditional high school curriculum and a treatment group that participated in the early college program. The researchers studied quantitatively data associated with outcomes such as attendance rates, grades, continuous enrollment, and so forth. They added depth to their study by including a qualitative component that explored student perspectives of the program and its impacts. Results showed that students enrolled in the treatment group performed better relative to staying in high school than the control group. That is, with a p value of $p < .01$, students were absent less and performed better in math and biology, two important college preparatory subjects. More importantly, participant perspectives on their own college readiness and their visions of themselves as college-bound, reflected positively on the intentionality of the program to provide them with readiness skills. The simple fact that students in the early college program actually attended classes on a college campus, mingled with actual college students, and were viewed and treated as college students had an impact on their readiness. Simply put, "students also believed that interacting with older students could provide them with lifelong skills that would allow them to do well in college and careers" (Edmunds, 2012, p. 87).

Licensing

Data gathered through a survey administered an inter-agency collaboration that was called the Survey of Income and Program Participation (SIPP) was discussed by Ewert and Kominski, (2014). They endeavored to extract data related to alternative credentials earned by

graduates "other than academic degrees that have labor market value" (Ewert & Kominski, 2014, p. 1). The researchers aimed to present the facts surrounding alternative credentials and the demographics of the representative sample that completed the SIPP. Their findings showed that employment and earnings are generally enhanced by people who possess an alternative credential. Interestingly, they found that individuals with only a high school diploma or less were the least likely to hold an alternative credential. As for earning power, one of the findings was that those with an alternative credential who were working full time earned more than they would if they did not have the credential (Ewert & Kominski, 2014). Their findings also indicated that two demographic groups, those with less than a high school diploma and those who possessed a professional degree, earned significantly higher salaries if they had an alternative credential than those who did not possess an alternative credential. Ewert and Kominski (2014) pointed out that nursing and nursing assistants were among the most common fields of certification and that nursing was also among the most common fields of study. In the end, they concluded that the focus of the vast majority of studies related to education is on secondary and post-secondary degrees. There are few studies about alternative credentials but their examination of the SIPP results indicated that those who earn an alternative credential "have labor market value, especially for those with low levels of education" (Ewert & Kominski, 2014) confirming the perceptions of the participants in this dissertation.

Preparation

A program devoted to high risk students in sixth grade and developing their college and career readiness skills was presented by Radcliffe and Bos (2013). Their purpose was to establish strategies for assisting at-risk students identified in sixth grade to build college and career readiness. The original sample consisted of 100 students, 50 in the treatment group and

50 in the control group. The participants also included pre-service teachers. Due to various factors, the treatment group ended up being reduced to 31 by the end of the study. Various instruments were used to collect data: The Goal-setting Worksheet, the PALS survey, and mentees' self-report surveys, TAKS test, and school records. The PALS survey results – administered three times during high school - were evaluated using a paired t-test analysis ($p <$ .05). Self-report survey responses were analyzed using a paired samples approach. The authors found that students finishing high school face different prospects than high school students did previously and benefitted from the application of some preparatory strategies including being matched with a pre-service teacher, setting goals, and so forth. The authors detailed eight strategies and a corresponding timeline for their implementation and five goals used with a treatment group to improve college readiness.

> 1. Understand the nature of college, 2. Recognize that a college education may be important to his or her future success, 3. Gain positive perceptions and aspirations about college, 4. Prepare academically for college admission, and 5. Set short- and long-term goals that support becoming college-ready. (Radcliffe & Bos, 2013, p. 137)

The students in the study had not finished their senior years yet so the study was not able to predict their acceptance into college or their career readiness.

Skills and dispositions

This section will focus on the literature that relates to the third sub-finding statement related to the skills and dispositions associated with college and career readiness, particularly Time Management and Balance, Work Dispositions, and Social Skills. Table 5 lists the major literature related to sub-finding statement 3.

Table 5

Key Articles Related to Skills and Dispositions

Citations	Purpose	Sample/Methods	Findings/Outcome
Greenberg and Nilssen (2015)	To investigate the state of education and attitudes among educators, parents, and students towards reading, writing, and arithmetic (the 3 Rs) and collaboration , communication, creativity, and critical thinking (the 4 Cs) and to determine what stakeholders believe should be the emphasis of education.	Mixed methods using qualitative interviews (*n* = 22) for the report card of education today portion and to help design survey; quantitative survey of teachers, administrators, parents, and students (*n* = 1,030; 537 UK, 493 US).	58% believe there is too much emphasis on test prep; 60% believe not enough emphasis is placed on collaboration; 95% perceive collaboration is important; 96% believe problem-solving is critical for work; 92% indicate that collaboration promotes active participation and 88% believe collaborative skills encourage learners to take ownership of their education; 62% of respondents believe that experiential learning is the best way to foster collaboration.
Carnavale and Rose (2015)	To analyze jobs, earnings, and educational attainment and explore "the real economy" in order to understand what people need to be prepared for the workplace.	"Findings are based on an historical analysis of the annual input-output (I-O) tables produced by the Department of Commerce's Bureau of Economic Analysis between 1997 and 2007" (abstract) and the comprehensive survey of U.S. workers contained in the Current Population Survey, which is conducted by the Census Bureau for the Bureau of Labor Statistics.	The American economy is one that demands not only entry-level skilled workers but workers who value lifelong learning. Post-secondary education continues to play an increasingly important role in the pathway to middle class economic success. The percentage of workers who had some level of post-secondary education grew from 25% to 65% between 1967 and 2012 and their labor output grew from 36% to 77%.

(continued)

Table 5

Key Articles Related to Skills and Dispositions

Citations	Purpose	Sample/Methods	Findings/Outcome
ConnectEd: The California Center for College and Career (2012)	"To develop an operational definition of college and career readiness" (p. 1)	Review of prevalent studies and documents related to the topic including: research summaries, policy and advocacy documents, existing frameworks.	Based on their overview of existing documents and research, ConnectEd create a readiness framework that includes four areas: Knowledge, Skills, Productive Dispositions and Behaviors, and Educational, Career, and Civic Engagement.
Byrd and McDonald (2005)	To define college readiness by exploring the perspectives of first-generation college students	Qualitative study, phenomenological in-depth interviews; (n = 8) undergraduate students from a small, urban university in the Pacific Northwest.	Life experiences contribute to academic skills, time management, goal focus, and self-advocacy.
Light (2001)	To explore what choices undergraduate students make that help them make the most out of college and what effective ways that college faculty and staff can facilitate a meaningful college experience.	Long-term qualitative study over the course of 10 years where over 1600 Harvard undergraduates were interviewed.	Two of the biggest challenges faced by college undergraduates are time management and finding balance. Adding activities is important for students to develop and master skills in time management and in finding satisfaction with college.
Murphy, Blustein, Bohlig, and Platt (2010)	To explore the experiences of recent college graduates to ascertain their levels of adaptability and resilience.	Qualitative study (n = 10) using Consensual Qualitative Research methodology	In order to be prepared for the working world, people need realistic expectations and a flexible approach to negotiating change and challenge in the workplace.

(continued)

Table 5

Key Articles Related to Skills and Dispositions

Citations	Purpose	Sample/Methods	Findings/Outcome
Raelin et al. (2011)	To examine the perceptions of undergraduate students who participated in a cooperative education experience during college about whether or not those experiences had an effect on work, academic, or career self-efficacy.	Quantitative (n = 886) undergraduate students from four universities across the country, two with coop experiences and two without. Four instruments	There were significant differences in work, career, and academic self-efficacy that resulted from a co-op experience. Work and career self-efficacy increased significantly while academic self-efficacy decreased between the two surveys. Participants who completed an internship or co-op experience had increased levels of career self-efficacy.
Lin, Lai, Chiu, Hsiah, and Chen (2016)	To explore Taiwanese college student perspectives on the effects of experiential learning on their psychosocial development.	(n = 36) Taiwanese undergraduate college students; phenomenological qualitative study interviews	Participants gained an understanding of empathy and diversity through their experiential learning experiences; participants also developed skills in accepting the views of others, communicating with others, and maintaining interpersonal harmony.

Soft skills

Thirty-nine percent of educators agree that schools can do better at giving graduates the soft skills they need to be ready for careers (Bolkan, 2015). A recent NPR broadcast (Rovner, 2015) mentioned a shift that medicine is taking in training future doctors that places new emphasis on communication and collaboration skills. What these two articles had in common

related to what the Wainhouse Report (Greenberg & Nilssen, 2015) suggested: While much emphasis is being placed on measuring students' readiness for the world of work in terms of what they know, there is a shift in what the business world demands of graduates; namely, that they arrive at the workplace with certain soft skills like adaptability and the ability to work with others. The Wainhouse Report conducted a qualitative study where 22 educators were interviewed to create what they termed a qualitative "report card of education today" and then used the results to create a survey instrument. That survey instrument was then administered to 1,030 teachers, administrators, parents, and students in the United Kingdom (n = 537) and the United States (n = 493). The Wainhouse Report consisted of a combination of the findings from the qualitative investigation and the subsequent survey. The findings revealed that respondents believe that schools need to do a better job of teaching students to collaborate and problem-solve. A large majority of the participants interviewed (95%) felt that collaboration is an essential aspect of education. Similarly, 96% of the participants perceived problem-solving as a critical component. Interestingly, 62% of respondents agreed that experiential learning was the best way to teach collaboration.

There is some evidence such as a report from Georgetown University's Center on Education and the Workforce that suggested the best answer for the economic success of our students is post-secondary education (Carnavale & Rose, 2015) and not the multiple pathways advocated elsewhere. It suggested that post-secondary training and education is a requirement for young people to earn middle class salaries. Still, the report identified important skills (referred to elsewhere as "soft skills") such as the ability to work with others, problem-solving, adaptability, and placing value on personal professional development (Carnavale & Rose, 2015). Buried in the deep analysis of the American economy and the changes that it demands of

institutions educating workers is an acknowledgement that there are soft skills needed by the workforce that are not typically part of the academic curriculum. It has been argued that educators must end the dichotomization of college and careers because young people entering the workforce need both non-cognitive skills and technical skills, not one or the other (ConnectEd: The California Center for College and Career, 2012). "We can no longer afford to maintain traditional educational dichotomies — between college and work, between academics and technical skills, and between cognitive skills and character. These divisions have proven unproductive; students need all of these" (p. 3).

A conjoined approach has been suggested to help students understand what it takes to be successful post-graduation (Frey & Fisher, 2015). The essential ingredients that high school graduates need to be college and career ready are persistence and resilience (Frey & Fisher, 2015). They focus on particular characteristics of preparedness and their approach attempts to deepen our understanding about what recent graduates perceive to be what they regret not having learned in their high school experience (Frey & Fisher, 2015). The need for soft skills or non-cognitive factors like "study skills, attendance, work habits, time management, help-seeking behaviors, metacognitive strategies, and social and academic problem-solving skills" is highlighted also in Werner (2015) and Conley's (2012) work on college and career readiness and discussed more below.

One researcher and prolific writer about readiness skills is Conley (2012) who is the chief executive officer of the Educational Policy Improvement Center at the University of Oregon where he regularly contributes to the literature on college and career readiness. For example, in a 2012 article, Conley and McGaughy compared and contrasted college readiness skills and career readiness skills acknowledging that they do share some similarities, enough to advocate

for giving them simultaneous attention in high schools. While there are differences between the two constructs, "the elements they share most consistently are the skills all students need to be ready for a variety of postsecondary learning environments. These include study skills, time management skills, persistence, and ownership of learning" (p. 31). As such, the authors advocated for the inclusion of these skills across academic content areas so as to promote the success of students no matter what their pathways.

A program called the Wise Individualized Senior Experience (WISE) that features high school seniors gaining valuable exposure to the work world and to careers through internships and research was focused on by Werner (2015) in a doctoral dissertation. Her sample was comprised of high school graduates who were drawn from eight schools varying in size and location – five public schools outside of New York City, two public schools in New York City, and one private school. She completed a thorough qualitative exploration of the effects of WISE on students by coding their reflective journals (n = 73), conducting interviews (n = 12), and interviewing mentors (n = 5). Werner (2015) found as a result of students' hands-on internships that they developed skills such as resiliency, problem-solving, and goal-setting. She also found that participation in the WISE program led students to develop problem-solving skills and provided them with valuable interactions with new and different people in the work world.

Time management and balance

A relatively small sample size of first-generation college students were interviewed to discover their perspectives on what readiness entails in an attempt to define college readiness (Byrd & MacDonald, 2005). The researchers used phenomenological, in-depth interviews and time management emerged as a code from the interview transcripts because participants "expressed it explicitly, emphatically, and often [underscored] its importance" (Byrd &

MacDonald, 2005, p. 33). The study sample was comprised of eight undergraduate students from a small, urban university in the Pacific Northwest. The authors used a qualitative approach to their study using an in-depth phenomenological interview methodology. The study provided an understanding of college readiness from the perspectives of older first-generation college students who transferred from community colleges. Results indicated that life experiences contribute to academic skills, time management, goal focus, and self-advocacy. All eight of the respondents talked about time management as an essential skill and according to the researchers six of the respondents "related this strength to life experiences, especially work related experiences, and to being older" (p. 29). Their findings were consistent with what Edmunds (2012) found in her review of the literature related to early college experiences that promoted college readiness, particularly non-academic skills such as persistence, emotional maturity and an understanding of college culture. She asserted that "academic behaviors such as study skills, time management, and the ability to self-monitor the quality of work are other core components of college readiness" (p. 82).

Over 1600 Harvard undergraduates were interviewed, some students more than once, in a long-term qualitative study that was conducted over 10 years' time (Light, 2001). Light is a self-described statistician but he extoled the richness of the personal interview data that was collected that would not have been possible through a survey alone. Not surprisingly, one of the most important findings from this extensive study was that time management and balancing academic and non-academic activities were the biggest challenges that participants faced when they began college, even high-flying Harvard undergraduates. Light synopsized the finding:

> The critical word is time. Sophomores who had a great first year typically talked about realizing, when they got to college, that they had to think about how to spend their time.

> They mentioned time management, and time allocation, and time as a scare resource. In contrast, sophomores who struggled during their first year rarely referred to time in any way. (p. 24)

Although it may sound counter-intuitive, Light and his colleagues discovered that while there is no significant effect on student grades and their level of involvement in college activities such as holding a job or volunteering, students are generally happier and experience a greater sense of well-being when they are involved than students who hole up in their dorm rooms studying when they are not in class. Thus, part of being able to manage their time wisely and being satisfied with their overall college experience is in adding commitments that require students to find a balance.

Work dispositions

Work dispositions that workers need more than ever before are traits such as an ethic of lifelong learning (Friedman, 2016). Moreover, Friedman discussed the innovative ideas of Olin College president, Richard K. Miller, regarding an important skill that today's workers need to possess. Friedman paraphrased Miller's position that we cannot even imagine what the jobs of the future will look like and that "you'll find jobs…that will require rapid and continuous learning" (p. 224). It is no longer sufficient for a young person to simply earn an academic degree and assume that a job will be available because the degree says he or she has learned the prerequisites. There are certain non-cognitive work dispositions that are not typically part of college coursework that employers are looking for. "There is a growing awareness that our graduates will need much more than mastery of the three Rs to make it in the world" (Hoerr, 2017, p. 3). ConnetEd (2012) calls these skills "productive behaviors and dispositions" and

concurs that what are referred to as non-cognitive skills elsewhere, "a group of noncognitive, or social-emotional, skills" are "critical for success in both education and careers" (p. 8).

Educators need to change their emphasis away from a purely cognitive thrust (Hoerr, 2017). "As difficult as it is to transition from the cognitive hypothesis to a focus on success in life after graduation, we really have no choice: continuing to teach the same content does a disservice to our students" (Hoerr, 2017, p. 4). Hoerr (2017) also took issue with the phrase, non-cognitive skills, preferring instead to call them "success skills" (p. 15). Accordingly, he presented five success skills that he proposed are necessary for young people to possess in order to be successful in today's work environment: empathy, self-control, integrity, embracing diversity, and grit. One of the skills that is subsumed in the formative five that Hoerr proposes is what he termed, receptivity, a concept that is in line with the research findings concerning exposure, namely that young people will benefit from "being open to new ideas and experiences" (p. 9). By being open to new experiences, the five success skills he proposed can be realized, particularly empathy towards others and embracing diversity.

Transitions are telling moments for young people and depending on what research question is being answered, researchers focused on one of the many transition times young adults encounter. For example, Murphy, Blustein, Bohlig, & Platt, (2010) explored the experience of recent college graduates transitioning from college to career within the first three years from their graduation in order to ascertain their levels of "adaptability and resilience" (p. 75) as they entered the workforce. Their sample was comprised of five men and five women and they used a qualitative methodology based on Hill, Thompson, and William's (1997) Consensual Qualitative Research (CQR). Using a qualitative interview protocol adapted by one of the authors who created 46 questions based on Phillips, Blustein, Jobin-Davis, and White's (2002) protocol, the

authors discussed the construct of "adaptability" and posited that it "is increasingly relevant to understanding how individuals survive and thrive in the working world" (Blustein, 2006). Within that construct, the authors' findings revealed that part of the adaptability construct includes realistic expectations and a flexible approach to negotiating change and challenge within the working world" (p. 180). Furthermore, they determined that counselors play a key role in leading students towards "positive and productive trajectories into adulthood" by "fostering adaptability and resilience" (p. 181) at this critical stage in their lives, the transitional period between college education and the world of work.

The flawed assumption that gifted students do not need opportunities to explore careers and the dispositions necessary for success beyond school was exposed by Higgins and Boone (2003). They discussed the essentials for providing gifted students (but by extension all students) necessary for preparing them for life after high school so that they can make the transition with confidence. They posited that schools should make a concerted effort to provide students with both structured and unstructured activities that connect them with the real world of life after high school so as to better prepare them for what they will face. The authors proposed that schools include curriculum that ventures beyond the boundaries of school by including mentoring, career education, self-determination, leadership skills, service learning, and future studies. They provided descriptions of each of these components and listed the benefits of the instructional concept that they term, "beyond the boundaries of school instruction" (p. 138).

While the study by Raelin et al. (2011) examined a sample of undergraduate students who participated in a cooperative education experience during college, their findings established a significant relationship between co-op learning and the three facets in particular that they termed "career self-efficacy change:" academic self-efficacy, career self-efficacy, and a new

dimension that they termed "work self-efficacy" (p. 17). Their sample pool of 1637 participants was drawn from four universities from across the country, two that provided a formal co-op experience and two that did not. They ended up with a sample numbering 886 students who successfully completed two surveys either on-line or in paper form. The researchers used four instruments during the study: A new researcher-developed work self-efficacy inventory (WE-Ei) (Raelin, 2010); the short form of the Career Decision-Making Self-Efficacy Scale of Betz, Klein, and Taylor (1996); the Self-efficacy for Academic Milestones (Lent, Brown, & Larkin 1986) and the Self-Efficacy for Technical/scientific Fields (Lent, Brown, & Larkin, 1984) surveys; and the Advisory Working Alliance Inventory (AWAI) created by Schlosser and Gelso (2005). Raelin et al (2011) naturally made extensive reference to Bandura's (1986) theory about self-efficacy and define self-efficacy as "an individual's perceived level of competence or the degree to which she or he feels capable of completing a task" and continued by pointing out that "self-efficacy is a dynamic trait that changes over time and can be influenced by experience" (p. 18). The authors also drew on Social Cognitive Career Theory, promulgated by Lent, Brown, and Hackett and described as "a conceptual framework aimed at understanding the processes through which people develop educational/vocational interests, make career-relevant choices and achieve performances of varying quality in their occupational pursuits" (as cited in Raelin et al., 2011, p. 19).

Raelin et al. (2011) endeavored to answer a research question about "whether cooperative education, by itself . . . has an effect on one or more of three forms of self-efficacy: work, academic, and career, and if it does, whether the quality of the co-op placement accounts for self-efficacy enhancement" (p. 21). The authors found that based on data gathered from a pre-survey and a post-survey, there were significant differences in work, career, and academic self-efficacy

among participants based on a two-tailed paired sample *t*-test ($p < .01$). Work self-efficacy ($n = 886$) increased significantly with the mean on survey 1 at 3.88 and the mean on survey 2 at 3.93. Similarly, career self-efficacy ($n = 882$) increased significantly with a survey 1 mean of 3.75 and a survey 2 mean of 3.81. By contrast, academic self-efficacy ($n = 878$) decreased between the two surveys from a mean of 3.98 to 3.90 that the authors attributed to a reduction in students' GPA. The authors found no significant difference in work self-efficacy between students who participated in a co-op experience versus those who did not. Interestingly, they conducted a t-test analysis on participants who took advantage of an internship and found similar results to the t-tests with co-op students and concluded that both groups of participants experienced "a positive change in their career self-efficacy compared to students choosing neither co-ops nor internships" (p. 26). The authors also completed a regression analysis to determine the effect of demographics, contextual support variables, and different forms of self-efficacy themselves and what they found was that the only area that reflected a high level of significance ($p < .01$) relative to participation in a co-op experience was work self-efficacy change. Other interesting learning from the Raelin et al. (2011) study is that "co-op quality dimensions" influenced participant work self-efficacy when participants were able to contribute positively to their work placement, when they were able to work as a member of a team, and when they were able to apply knowledge in their major field of study. Lastly, the authors presented interesting research related to a new facet of self-efficacy, work self-efficacy, that "measures a range of behaviors and practices – e.g.,, exhibiting teamwork, expressing sensitivity, managing politics, handling pressure – attending to students' beliefs in their command of the social requirements necessary for success in the workplace" (p. 30). These behaviors and practices bear a resemblance to the social skills detailed in chapter four of this research project and in the sub-section that follows.

Social skills

Contrary to what appears to be an emphasis in the business sector on purely cognitive skills, there is more than ever a need for schools to nurture social skills (Miller, 2015). "The only occupations that have shown consistent wage growth since 2000 require both cognitive and social skills" (Miller, 2015, p. 1). Since many low skill jobs are being filled with machines that do not possess the "human touch" (p. 2), it is even more imperative that human workers possess the social skills that will complement the automated work. Certain "non-cognitive skills like character, dependability and perseverance are as important as cognitive achievement" (Miller, 2015, p. 3).

The connection between experiential learning and social skills was recently highlighted (Lin, Lai, Chiu, Hsieh, & Chen, 2016). The purpose of the study was to explore Taiwanese student perspectives on the effects of experiential learning on the psychosocial development of college students. The study sample consisted of 36 university students from 3 northern Taiwan universities (12 from each); Ages 19-25. Participants were chosen based on two criteria: (a) If they involved in informal learning activities; and (b) If they were willing to share their experiences about experiential learning and psychosocial development. The study was a phenomenological, qualitative study that utilized teaching assistants who were trained in interviewing skills as researchers who interviewed the 36 participants once. The authors of the study make a loose connection to the tenets of experiential learning and Kolb's ideas about learning from experience were cited:

> (1) an openness and willingness to involve oneself in new experiences (concrete experience); (2) observational and reflective skills to view these new experiences from a variety of perspectives (reflective observation); (3) analytical abilities to integrate ideas

> and concepts created from their observations (abstract conceptualization); and (4) decision-making and problem-solving skills to put these new ideas and concepts in practice (active experimentation). (as cited in Lin, Lai, Chiu, Hsieh, & Chen, 2016, p. 604)

Of principal interest in this sub-section on social skills are the researchers' findings about how participants gained an understanding of empathy and diversity through their experiential learning experiences. Similarly, they reported that participants developed skills in accepting the views of others, communicating with others, and "maintaining interpersonal harmony" (p. 609) thanks to the practice they were afforded through their hands-on learning experiences. Overall, the researchers identified improved interpersonal skills and "positive psychosocial development" (p. 610) because of the experiences participants had in working with their peers through experiential learning.

Another facet of readiness could otherwise be termed, "positive adjustment," (Sheu & Lent, 2009, p. 45) in college or the workplace and refer to the factors that support adjustment. Sheu and Lent (2009) specifically discussed the concept of well-being and the dichotomy that exists in the literature between theorists who promote either the notion of an hedonic, subjective well-being that refers to "feeling good" versus an eudaimonic, psychological well-being that refers more to a positive sense of purpose. The eudaimonic perspective "characterizes well-being in terms of meaning, purpose, and the actualization of human potential" (p. 47), certainly reminiscent of Vygotsky's theory of the zone of proximal development (as cited in Bransford, et al., 2000).

Learning

This section will focus on literature that relates to the fourth sub-finding statement primarily concerned with participant readiness skills in learning that were afforded through choice, supportive teachers, adult support, study skills, and learning itself. Table 6 highlights key articles that relate to the fourth sub-finding statement focused on learning readiness.

Table 6

Key Articles Related to Learning Readiness

Citations	Purpose	Sample/Methods	Findings/ Outcome
McDonald and Farrell (2012)	To explore student perceptions about their readiness in academic, social, and personal preparedness and find out why so many students do not successfully bridge the gap between high school and college.	Qualitative, grounded theory design; focus group interviews; random sample of 31 freshman and sophomore students enrolled in the Early College High School program.	Four themes emerged from the focus groups: Readiness, Learning Community, Identity, and Productivity. Participants perceived that when they took college courses, they rose to the occasion because they were mixed in with college students. They also associated readiness with ability to complete rigorous coursework, ability to exhibit high-level thinking, and time management and discipline.
Bennett (2007)	To answer the question, How influential is social support in enhancing high school seniors' occupational engagement orientations?	Quantitative; (n = 1741) high school seniors from 17 high schools who completed a 62 item survey that combined items from a few different surveys. Multiple regression analysis of 4 independent variables and their effect on the dependent variable, occupational engagement orientation.	OEO scores were higher for CTE students than other students because they received mentoring, encouragement, and performance feedback. Participants benefitted from supportive relationships with teachers and other adults.

(continued)

Table 6

Key Articles Related to Learning Readiness

Citations	Purpose	Sample/Methods	Findings/Outcome
De La Ossa (2005)	To identify strengths that could be built upon in the education domain.	Qualitative; Appreciative Inquiry approach; sample of 78 students from different public alternative high schools; videotaped focus groups using a participant-observational approach.	One particular theme was identified as personal attention/relationships. Participants named the smaller class sizes in the alternative setting as one factor that fostered the personalization that helped them flourish.
Ambrose and Poklop (2015)	To investigate co-op students' perspectives of their learning.	Phenomenological study of college seniors who completed 1-3 years of co-op experience, n = 104; semi-structured interviews.	Co-op employment extends and supplements the academic curriculum; it extends the curriculum through relevance and it supplements the curriculum by helping students extend what they've learned; increase motivation; facilitate practice and feedback; promotes transfer of understanding that leads to deep and flexible learning; encourages self-directed learning.

Choice

There is much that educators can learn from student resistance, a natural and expected byproduct of adolescence, according to Toshalis (2015). That is, if educators can harness this energy for productive use, much like a martial artist who uses the force of an opponent in a defensive way, it becomes a win-win situation for both educators and young people alike. What this points to, according to Toshalis, is that student resistance is really a cry for independence and autonomy. Students want and indeed thrive on opportunities to call the shots in their pathways. "The most powerful forms of learning occur when students experience themselves not

as objects to be controlled but as agents who are capable of making decisions that shape their lives and the lives of others" (Toshalis, 2015, p. 8). As principal, Domers (2017) has infused choice intentionally in his high school program in Philadelphia by giving students more say in their overall courses of study so that they match students' "passions, skills, interests, and career goals" (p. 27). At the same time, the school tried to replicate as closely as possible the college paradigm of prerequisites, introductory courses and so forth. By doing this, Domers (2017) provided students and their families not only with choice, but also a more relevant, less fragmented course of study that is more personalized. This revamping of the overall academic program to emphasize student choice has resulted in "more students taking rigorous course sequences, and they're learning to select courses with a larger goal in mind, just as they will be expected to do in college" (p. 28). Toshalis similarly advised educators to shift their thinking about why students act out or otherwise demonstrate resistant behavior because in effect they are seeking ways to take control of their learning and finding ways to make that learning more authentic and autonomous.

A qualitative study that used grounded theory designed to explore student perceptions reported about their readiness in three areas: academic, social, and personal (McDonald & Farrell, 2012). Their research question was, "What are ECHS students' perceptions of college readiness with respect to (a) academic preparedness, (b) social preparedness, and (c) personal preparedness?" (p. 225). They used focus group interviews to collect student perception data about the reasons why many students do not successfully bridge the transition gap between high school and college. What they found was that part of the preparatory regimen that works for students who intentionally prepare for college by taking college courses in high school is that they have choice in the direction and makeup of their academic programs. Simply put, "schools

that offer choices and allow for students to personalize their learning needs are better suited for these learners" (McDonald & Farrell, 2012, p. 220). The researchers drew their sample from a population of high school freshmen and sophomores who were enrolled in the Early College High School program. A random sample from the larger population was taken to form focus groups that were comprised of 16 freshmen and 15 sophomore students who were representative of the larger student population. From the focus group data, the researchers identified four themes that emerged noting that these themes paralleled the three constructs identified above. The themes that emerged were also similar to the findings that emerged from the current study and were identified as Readiness, Learning Community, Identity, and Productivity. A propos to the current research study, readiness as a theme contained some subthemes that were remarkably similar such as Autonomy (choice) and Management of Time (time management). Participants in the study were high school students who rose to the occasion because they were mixed in with college students and this caused them to match the maturity level of their college student counterparts. Similarly, participants identified readiness as "their ability to complete rigorous coursework, ability to exhibit high-level thinking, and problem-solving and personal skills, such as time management and discipline" (McDonald & Farrell, 2012, p. 228). Interestingly, participants in the McDonald and Farrell (2012) study consisted of high school freshmen and sophomores who mirrored the participant reflections in the current study. They identified the need for a new-found self-discipline in regard to completing assignments, ignoring distractions, and maintaining focus on long-term goals. "The participants recognized that the self-discipline required for collegiate success is rigorous" (McDonald & Farrell, 2012, p. 229). What did not match between the two studies was discussion about career readiness because that was not one of their focuses.

Supportive teachers and adult support

Several participants identified supportive teachers as the key to their deep engagement with their high school experience both at CTI and at their home high schools. This is consistent with the findings in several studies that identified mentoring as an important aspect of career planning. For example, Gewertz (2017) highlighted the state of an Arkansas implementation of a career coaching initiative whereby the state sent career coaches to high schools in nearly half of its counties. Their purpose was to work with high school students and have realistic conversations about potential career trajectories. With the recent resurgence of career and technical education initiatives nationwide "has come recognition that good career advising can mean the difference between a scattershot sampler of classes in high school and a coherent, meaningful course of study that sets students up for their next steps" (Gewertz, 2017, p. 55). Career coaches in the program teach students important soft skills and work dispositions like proper attire on job sites, when it is not appropriate to use their phones, and punctuality, among others. Overall, the program demonstrated how a career mentor or coach can be a valuable lynchpin for student exploration of career interests.

A study that provided empirical evidence as to the value of "social support from adult supervisors and mentors" and reported that "the findings indicated that opportunities to receive social support, especially having a mentor, contributed most to seniors' future dispositions toward occupational engagement" was reported by Bennett (2007, p. 187). The study attempted to answer three research questions, the third being of most relevance to this subsection: "How influential is social support in enhancing high school seniors' occupational engagement orientations over and above the influence that work-based internships provide?" (p. 191). The data for the study was collected from a sample that was comprised of seniors from 17 high

schools (n = 1,741) who took a 62 item survey. The survey was a mixture of items from the National Education Longitudinal Study of 1988 (Carroll, 1996), the Community Participation and U.S. High School Students Survey (Marks 2000), and additional items created by the researcher. The researchers were able to procure a 67% response rate from the entire senior class of 2002. The method used was Ordinary Least Squares (OLS) or a hierarchical multiple regression analysis using SPSS in order to test the extent to which each of the four independent variables influenced and caused variance in the dependent variable (occupational engagement orientation). The independent variables of most relevance to this sub-section were the latter two, social support and the interaction that occurred between the program and social support variables. Of particular interest are the findings related to the portion of the sample (n = 361) who were CTE (Career and Technical Education) students. The researchers conducted an ANOVA that revealed that CTE students "had higher OEO scores (M = .44) than other high school students (M = -.11)" and this may have resulted from the fact that CTE students received more mentoring ($p < .01$), encouragement ($p < .05$), and performance feedback from school staff ($p < .001$) than other students suggesting that these variables led to greater occupational engagement orientations. Overall, the study clearly established the importance of providing supportive social structures for students who participate in experiential, work-based learning programs. The findings in the Bennett study matched the finding statements that are the focus of this dissertation, namely that participants benefitted from supportive teachers and other adults in establishing and solidifying their career interests and orientations.

A less empirical study that used a unique approach to data collection was that of De La Ossa (2005). De La Ossa used a qualitative Appreciative Inquiry approach whereby instead of studying deficiencies, the study attempted to look for strengths that could be built upon. The

researcher explained that "unlike many behavioral approaches to change, Appreciative Inquiry does not focus on changing people; instead it invites people to engage in building the kinds of organizations they want in their communities" (De La Ossa, 2005, p. 30). The sample size consisted of 78 students from 8 different public alternative high schools and the data collection resulted from videotaped focus groups in a "participant-observational approach" (p. 29). One particular theme that was identified was "personal attention/relationships" (p. 32). Participants in the study identified class size as another theme and felt that one advantage to small class size in the alternative high school was that "they were able to talk with teachers one on one to get help with a problem, and that knowing the teacher helped them work harder toward their goals" (p. 32). The effects of the small school setting and concurrent small class settings of the alternative high schools, mirrored the findings that emerged from this researcher's participants in that there were more personal relationships that were built with teachers. De La Ossa's (2005) data reflects that students flourished in small academic settings afforded by alternative schools because they were affected in the following ways: "being able to academically concentrate and learn, feeling supported and comfortable, and forming valuable community relationship skills" (p. 33). Similarly, Hooker and Brand (2010) found that "disconnected youth, in particular, need access to a comprehensive set of resources and supportive adults who can help them make informed choices regarding postsecondary education and careers, and interventions must focus on both in-school and out-of-school youth" (Hooker & Brand, 2010, p. 76).

Study skills

The perceived deficit of study skills in college students was discussed in a study that emphasized the importance of teaching study skills in the context of coursework rather than in separate, remedial courses that were termed "bolt-on" courses (Wingate, 2006). This is

consistent with what educators know about the importance of providing students with relevance for their learning such as teaching grammar or vocabulary in literary context (Atwell, 1987; Weaver, 1996). Furthermore, teaching study skills in isolation without the relevance of coursework treats knowledge as only consisting of objective facts and that coursework is just a body of content to be learned for an assessment and then forgotten. The teaching of content in isolation approach only encourages a surface level of learning instead of the deeper, significant learning that might occur by conjoining study techniques with coursework. Other researchers (Conley, 2012; Edmunds, 2012) identified study skills as an important facet of readiness for college. Wingate (2006) identified study skills in the literature as referring to "academic tasks" such as "essay writing, presentation, and note-taking" (p. 458). At one point, Wingate (2006) suggested abandoning the term study skills altogether and instead placed emphasis on students adopting an ethic of lifelong learning that is necessary beyond college coursework. Study skills are not just a discreet set of skills separate from the learning that will continue in one's work life and personal life.

The case was made that whatever preparatory pathway students take in high school, we must ensure that young people are skill-ready for the cognitive demands of post-secondary work and the learning that goes along with that (Brown, 2014). Moreover, all high school graduates will need to engage in some sort of post-secondary learning whether they pursue a four year degree or not. The vocational pathways of old that served as alternatives to traditional high school coursework do not adequately prepare high school students any longer. Instead, Brown (2014) called for "hands-on learning experiences that combine strong content and skill development related to specific careers" and lauded programs that are cropping up now where students need to demonstrate "proficiency in reading and math, as well as problem-solving and

so called softer skills that make someone a good employee and compatible in the workplace" (p. 58). She also promoted the idea that secondary schools need to take accountability for better preparing students to be ready for the kinds of learning and training they will face after high school that will provide them with the skills necessary for success. Brown (2014) acknowledged that there are multiple pathways for post-secondary pursuits; but she asserted that no matter what those pursuits are, high school graduates need to possess the skills and knowledge that open doors of opportunity for making a good living.

Learning itself

A sample of Northeastern University Students were interviewed to investigate how they perceived their co-op experiences in which they participated during their undergraduate program (Ambrose & Poklop, 2015). The study was a phenomenological study utilizing standardized, semi-structured interviews of a stratified, purposeful sample of 104 students who completed between one and three co-op experiences. Researchers found that "co-op employment does, indeed, both extend and supplement the academic curriculum" (p. 56). The authors provided ample informant responses that support the findings of the study. Participants in the study found that classroom learning was enhanced and brought to bear through authentic job placements in the field in which they were studying. The findings confirmed what learning research suggests about experiential learning and that the authors present as section headers:

It increases students' motivation, which impacts learning.

It facilitates the practice and feedback that are necessary to the learning process.

It promotes contextual knowledge and transfer of understanding, facilitating mastery that leads to deep and flexible learning.

> It encourages 'just-in-time' learning, through which students become self-directed as they engage in the learning process. (pp. 56-57)

The authors used current researchers in the field of motivation in their coursework such as Pink's (2009) influential book, *Drive: The Surprising Truth About What Motivates Us,* and Dweck's (2012) book, *Mindset: The New Psychology of Success,* to promote in their students a growth mindset and an understanding of the often misunderstood power of motivation. Overall, Ambrose and Poklop (2015) validated that "experiential learning is much more powerful and robust [than traditional classroom learning] because it provides students with opportunities to apply their knowledge and practice their skills in authentic, real-world situations, with all the contextual idiosyncrasies and unpredictability that entails" (p. 55).

The merits of experiential learning and its overall value in extending student learning in ways that pure classroom learning cannot was written about by Eyler (2009). Eyler (2009) presented a well-articulated explanation of the benefits of experiential learning in the undergraduate higher education setting. Her rationale is applicable, however, to the secondary level. She posited that "the challenge for liberal educators is to design learning environments and instruction so that students will be able to use what they learn in appropriate new contexts - that is, to enable the transfer of learning" (p. 24). Experiential learning by design inserts students into the community doing meaningful, authentic work which "helps students to both bridge classroom study and life in the world and to transform inert knowledge into knowledge-in-use" (p. 24). Eyler also emphasized that one of the key components of an effective experiential learning curriculum is structured reflection activities. "The most critical factor for achieving powerful learning outcomes from experiential-learning programs is the inclusion of opportunities

for feedback and reflection" (p. 30). Eyler's article confirmed what we know about experiential learning, namely that it "leads to deeper, more nuanced understanding of subject matter" (p. 27).

Chapter Two Summary

Four major theorists were discussed in the section devoted to experiential learning theory (Bandura,1989; Dewey 1938; Kolb, 1984; Vygotsky, 1978). Dewey's philosophical musings have provided the foundation for educational researchers since the early part of the 20th century and his writings are seminal with regard to the progression of learning and development from experience. Vygotsky (1978) is best known by researchers for his ideas related to the "zone of proximal development" and the successive experiential nature of learning. Kolb expanded the work of early learning theorists and wrote extensively about experiential learning itself by framing learning in three developmental stages, each one building upon the other and leading to new growth, deeper knowledge, and greater confidence including but not limited to career and college knowledge. Lastly, Bandura's (1989) theories about self-efficacy and personal agency as they relate to vocational identity and choices were discussed.

Literature related to the major finding statement (Bissell, 2017; Conley & McGaughy, 2012; Gentry, Peters, & Mann, 2007; Lent, 2013;) was reviewed as it related to how experiential learning can lead to the perception of greater readiness for college and careers (Gentry, Peters, & Mann, 2007), greater career self-efficacy (Bandura, 1989), and greater "college knowledge" (Conley & McGaughy, 2012).

Sub-finding statement 1 related to exposure experiences in the work world and the college world that researchers (Ambrose & Poklop, 2015; DeLorenzo, 2000; Esters & Retallick, 2013; McCarthy & McCarthy, 2006) wrote about. This section provided discussion about research related to several themes that emanated from the current research: Experience,

Experiential Learning, Hands-on Experience, Exposure Itself, Learning What One Wants to Do, Confidence, and Real World. Work-related experiences found in internships or co-ops benefitted undergraduate students (DeLorenzo, 2000) leading to greater engagement, vocational identity, and career-decision self-efficacy (Esters & Retallick, 2013). While self-regulated learning can be fostered through simulations (Khaled, Gulikers, Biemans, & Mulder, 2016), exposure through co-op experiences (Ambrose & Poklop, 2015), job-shadowing (McCarthy & McCarthy, 2006), and practicums (Wee, Weber, & Park, 2014) increased confidence (Ambrose & Poklop, 2015) and helped in learning what one wants to do (Darche & Stam, 2012). Exposure to "real world" experiences (Kolb, 1984) helps graduates prepare for the realities of the work world (Peter D. Hart & Associates, 2006).

Sub-finding statement 2 related to college and career preparation and the review focused on several themes: Career Field and Career Planning, College, Licensing, and Preparation. Various researchers, (Ewert & Kominski, 2014; Hooker & Brand, 2010; Lent, Ireland, Penn, Morris, & Sappington, 2017; Radcliffe & Bos, 2013), extoled how experiential learning can lead to greater career self-efficacy (Lent, et al., 2017). College knowledge can also be facilitated through experiential learning experiences (Hooker & Brand, 2010) that take form in dual-enrollment programs (Hofmann, 2012) or early college programs (Edmunds, 2012; Hooker & Brand, 2010). Experiential learning can lead to a practical benefit of a license or other alternative credential (Ewert & Kominski, 2014) that yield economic value (Carnavale & Rose, 2015). Foundational planning has its place throughout the school experience starting as early as grade six (Radcliffe & Bos, 2013) was also reviewed.

Literature was reviewed as it pertained to sub-finding statement 3 that was focused on the skills and dispositions that were fostered through experiential learning. This section was divided

into thematic subsections under the headings, Soft Skills, Time Management and Balance, Work Dispositions, and Social Skills. Soft skills (Greenberg & Nilssen, 2015) are widely recognized as being as important as academic knowledge (Bokan, 2015) and in fact lead to economic cogency (Carnavale & Rose, 2015). Soft skills include things like time management, (Byrd & McDonald, 2005; Conley & McGaughy, 2012; Light, 2001) social and academic problem-solving skills (Frey & Fisher, 2015), persistence (Conley & McGaughy, 2012), adaptability, and the ability to work with others (Greenberg & Nilssen, 2015). Productive work dispositions (ConnectEd: The California Center for College & Career, 2012) or "success skills" (Hoerr, 2017) like lifelong learning (Friedman, 2016) "adaptability and resilience" (Murphy, Blustein, Bohlig, & Platt, 2010), and social skills (Miller, 2015) were also discussed as they related to "positive adjustment" (Sheu & Lent, 2009) and "career self-efficacy" (Raelin, Bailey, Hamann, Pendleton, Raelin, Reisberg, & Whitman, 2011).

Lastly, the literature (Ambrose & Poklop, 2015; Bennett, 2007; De La Ossa, 2005; McDonald & Farrell, 2012), relating to sub-finding 4, Learning, was discussed along with major themes of Choice, Supportive Teachers and Adult Support, Study Skills, and Learning Itself. Engagement was cultivated by giving students choice (Domers, 2017; Toshalis, 2015), specifically by offering the ability to personalize learning (McDonald & Farrell, 2012). Another factor that influenced student engagement was "social support from adult supervisors" (Bennett, 2007) or career coaches (Gewertz, 2017) because students thrived on the personal relationships that were fostered in smaller educational settings (De La Ossa, 2005). Study skills were recognized as an important readiness skill (Conley, 2012; Edmunds, 2012) alongside lifelong learning (Wingate, 2006) and are best inculcated through hands-on learning experiences (Brown,

2014) such as co-op experiences that extend and supplement the academic curriculum (Ambrose & Poklop, 2015) and lead to a deeper extension of student learning (Eyler, 2009).

College and career readiness appears to encompass more than just the academic knowledge and skills that have traditionally been the measures of a prepared graduate for college or work. Soft skills like perseverance, the ability to collaborate, interpersonal social skills, time management, and problem-solving – just to name a few – may demand more attention in the secondary curricula than what is currently happening. The literature reflects the importance of dispositional skills that go beyond academics that if properly nurtured in young people may lead to greater success after high school graduation. Gupta (2013) asserted that the best way to learn soft skills is through experiential learning. This study was designed to understand student perceptions of their own readiness relative to their high school education in an experiential learning program.

CHAPTER THREE: METHODOLOGY

Overview

The purpose of this research study was to explore post-secondary readiness for college and career from the perspectives of high school graduates of an experiential learning program called the Career and Technical Institute (CTI) a Board of Cooperative Educational Services (BOCES) program with an emphasis on hands-on learning. The participants in the study were either in their first year of college, in their first year of employment, or were both employed and enrolled in college study at the same time. The research was conducted using phenomenology based on the methods described by Moustakas (1994) and Merriam (2009) where the researcher sought to ultimately "depict the essence or basic structure of experience" (Merriam, 2009, p. 25).

This chapter is devoted to describing in detail the methodology employed to get at the essence of the phenomenon of college and career readiness based on the perspectives of graduates of an experiential learning program. Accordingly, after a general overview of the approach and the chapter contents, there are subsections that detail the setting, subjects, and sampling procedures; the research question at the center of the study; the research design; a discussion about the qualitative data, how it was collected, and what instrumentation was used; analysis procedures; discussion about trustworthiness measures; and, finally, an ethics statement to acknowledge that commonly accepted ethical considerations were utilized with integrity in the study.

Background of the Researcher

Richard Carroll is the researcher conducting this study. He has been an educator for 21 years. Richard began teaching middle school English in 1995 after completing a Bachelor of Arts degree in Secondary Teaching, English with a second major in French followed by a Master

of Arts degree in English Literature at SUNY − College at New Paltz where he served as a graduate teaching assistant. As a teacher, Richard was a mentor with the WISE program in Rondout Valley Central School District and experienced first-hand the power of hands-on learning as his mentee engaged in a Wise Individualized Senior Experience. Later, he pursued administrative certification and became an Assistant Principal at a large mid-Hudson Valley high school in New York State. He worked his way up to becoming a House Principal and eventually a Middle School Principal. When that school closed due to the economic downturn and a decline in enrollment, he returned to his position as a high school House Principal and is currently serving in that capacity. Richard has been active in technology initiatives since he became an educator and has been involved in the District Level Technology Team for his entire tenure. Presently, Richard is pursuing an EdD at Western Connecticut State University in Danbury, Connecticut.

The researcher engaged participants who were recent high school graduates of several different Dutchess County high schools, including the one where he is employed. Some participants were also graduates of that particular high school and this made relationship building easier. He held no authority over the adult participants because they had already graduated and were engaged in their adult, post-secondary worlds. In order to keep his biases in check, the researcher wrote in a reflexive journal (Appendix N) and an epoche journal where he could bracket any presuppositions and keep subjective leanings in check. Qualitative research naturally employs a constructivist approach where meaning is co-constructed by the researcher through the experiences of participants (Creswell & Clark, 2011). Moustakas (1978) refers to participants as "co-researchers" (p. 109). Attempts were made to remain open to participant perspectives through journaling and through phenomenological reduction via a rigorous coding

procedure. In order to confirm that interpretations of participant views were accurate, the researcher asked participants to read narrative summaries of the interviews, or member checking (Appendix J and Appendix O).

The purpose of the study was to explore and understand the perspectives of participants about their experiential learning endeavors and the impact they had on their college and career readiness. The study was embarked upon to help educators understand how hands-on learning might impact students relative to their career choices and college majors.

Research Design

Phenomenology is a well-established qualitative research design whereby the researcher primarily utilizes interviews and follow-up interviews that serve to gather data that will be distilled into the essence of the phenomenon being studied. Thus, "a phenomenological study seeks understanding about the essence and the underlying structure of the phenomenon" (Merriam, 2009, p. 23). Due to the emergent nature of the concept of readiness and the absence of student voices in defining it, a phenomenological design whereby the interpretations of individuals who have experienced a hands-on learning program provided the optimal design.

The phenomenon of college and career readiness is often discussed as it relates to how well prepared high school graduates are to face college academics without remediation or how well high school graduates are able to begin employment without additional training (Bentley Univ., 2014; ConnectEd., 2012; Greenberg & Nilssen, 2015). Statistical analyses are available about general academic readiness as measured by standardized tests such as the SAT and the ACT (U.S. Dept. of Ed., 2015), but measures of dispositional readiness are more elusive (Bentley University, 2014). The researcher explored the perceptions of recent high school graduates about their readiness as a result of an experiential learning experience. To find the

essence of high school experiential learning within this context, phenomenological interviews were conducted with graduates who have lived that experience. One strategy used to arrive at the essence of this common experience is through what Merriam (2009) describes as phenomenological reduction defined as "the process of continually returning to the essence of the experience to derive the inner structure or meaning in and of itself. We isolate the phenomenon in order to comprehend its essence" (p. 26). The essence of the experiential learning experience developed through findings that emerged through careful, close reading of the interview transcripts that included emergent coding. Follow-up data collection took place to further explore, clarify, and corroborate the findings until the researcher reached the point of saturation where the essence of shared experience of high school facilitation of readiness could be adequately described. Saturation is described in detail by Fusch and Ness (2015) as a methodological strategy where the researcher has exhausted potential findings and the data no longer elicits useful information because further coding is no longer productive.

Methodology

Creswell (2013) provided an overview of the commonly accepted practices for collecting and analyzing data in a phenomenological study that includes: (a) Identifying the research problem and whether or not it merits a phenomenological approach. In this case, the researcher wanted to explore the shared experience of a number of participants in the CTI program, an ideal scenario for a phenomenological study; (b) Establishing a research question; (c) Engaging in epoche, or bracketing out researcher biases; (d) Collecting data through interviews; (e) Conducting a careful reading of the interview transcripts to underline or highlight important or meaningful statements. This process was termed by Moustakas (1994) as horizonalization. Thus, horizonalizing is looking at the phenomenon from different perspectives as represented by

the varied perspectives present in the interview transcripts; 6. Synthesizing the data so as to create a description of the phenomenon that is clearly understood by the reader.

Identifying the Research Problem

One of the aspects in the identification of a topic is that the researcher has an intense interest or passion for the topic (Moustakas, 1994). Accordingly, the researcher has been interested in the topic for the many years he has worked in the secondary education milieu. Conducting a phenomenological study of college and career readiness from the perspectives of recent high school graduates represented the potential for an emergent, full description of readiness from young people who are presently figuring out how to be successful in whatever post-secondary venture they have found themselves such as working in a hair salon or attending classes at a community college.

Establishing a research question

Creswell (2013) asserted that establishing the research question is one that is "open-ended, evolving, and nondirectional" and "typically [starts] with a word such as what or how rather than why in order to explore a central phenomenon" (loc. 2807). The researcher aimed to understand the phenomenon of college and career readiness as viewed by young people in the beginnings of their post-secondary experiences relative to their experiential learning program in high school that they finished the year before. The research question was: What are the perceptions of high school graduates who engaged in experiential learning regarding their readiness for college and career?

Engage in epoche, or bracketing out of researcher biases

Since there is a passionate connection to the topic, the researcher must guard against allowing bias and prejudgment to unduly influence the data collection process. In order to look

at a phenomenon with a fresh mind, what the Japanese term, shoshin (Wictionary, 2017), Moustakas (1994) advised the phenomenological researcher to bracket bias through the epoche process. The researcher engaged in this procedure throughout the data collection and the analysis process. The epoche journal is provided in Appendix A.

Collect data through interviews

A qualitative study was devised because the researcher wanted to understand and describe the phenomenon of college and career readiness within the theoretical framework of experiential learning based on the perceptions of the participants themselves. In qualitative research, the primary source of data is through interviews of participants. Merriam (2009) was clear that "the decision to use interviewing as the primary mode of data collection should be based on the kind of information needed and whether interviewing is the best way to get it" (p. 88). The researcher determined that semi-structured, in-person interviews held the most potential for collecting rich data that would yield a full description of the phenomenon.

Careful reading of the interview transcripts

During the interview data collection process, interview transcripts were initially read to start identifying words and phrases that held potential for coding. More stringent, line-by-line reading of the transcripts then followed and led to the development of a large, 250 item code book that was eventually winnowed down to code groups until gradually emerging finding statements surfaced. Epoche journaling was kept along the way with memos after interviews and a regimen of constant comparison analysis.

Synthesizing the data

Once a significant body of data was gathered and coding completed, the work of integrating all of the notes taken along the way with the epoche journal, the memos, and the

coding was able to take place whereby finding statements congealed and a full description of the essence of college and career readiness could be made. Moustakas (1994) pointed out that the findings are just a snapshot in time and "the fundamental textural-structural synthesis represents the essences at a particular time and place from the vantage point of an individual researcher following an exhaustive imaginative and reflective study of the phenomenon" (p. 100). With that, an understanding that finding the essence of the phenomenon of college and career readiness is never fully complete and this study represents a part of the whole picture.

Setting

This qualitative research study will focus on a target population of recent high school graduates from an experiential learning program called the Career and Technical Institute (CTI). The participants were either in their first year of college, or they were in their first year of employment, or they were engaged in both. CTI is located in Dutchess County, NY, and it is a program offered by the Dutchess County Board of Cooperative Educational Services (BOCES), an agency that serves 13 school districts in the county and provides a limited number of students with a work-based learning experience in a particular field or career. For example, students can enroll in programs that focus on Cosmetology, Health Sciences, Early Childhood Education, and so forth.

Sampling

There were 237 graduates in the class of 2016 from BOCES who represented the population from which the sample was taken. Ten participants were sampled from those graduates who experienced CTI in a program offered by the Dutchess BOCES during high school and who were in their first year of college or who were in their first year of employment or who were doing both. The aim of finding the sample was to locate individuals who could

provide the most valuable and informative feedback possible (Merriam, 2009, p. 77) to support the researcher's quest to establish the essence of the phenomenon of college and career readiness. More specifically, there were three criteria used to identify the most "information-rich" participants (Merriam, 2009) for this study on the value of experiential learning and post-high school readiness: (a) Participants (n = 237) who engaged in an experiential learning program in high school. The Career and Technical Institute at Dutchess BOCES held the greatest possibility for participants because it housed the most substantive work-based learning program in the vicinity of the researcher; (b) Another criterion used to establish the sample was identifying participants (n = 5) in their first year of employment (preferably in a field that relates to their experiential learning focus) or participants (n = 5) who were studying in college the same subject they studied in their experiential learning program in high school. Participants who met this criterion had the most potential for deep insight about how experiential learning contributed to their readiness; (c) A third criterion described as "maximum variation sampling" (Merriam, 2009, p. 78), was used to find participants (n = 10) who represented a wide array of variation in the career areas in which they focused on in their experiential learning program. This led to a more dense conceptual understanding of the phenomenon of readiness because participants represented a wide variety of experiences (Merriam, 2009) within the broader experiential learning construct.

Purposeful Sampling

As illustrated in Figure 3, Sampling Design, purposeful sampling from a population of 237 high school graduates from the class of 2016 who engaged in a technical training program through BOCES were queried to identify a smaller sample of 5 college freshmen and 5 first-year workers to be interviewed. "Purposeful sampling is based on the assumption that the

investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (Merriam, 2009, p. 77). Since the aim of this qualitative research was to establish the essence of college and career readiness vis-à-vis high school experiential learning, a purposeful sample was sought. In this case, a purposeful sample was used to explore the phenomenon of experiential learning as it impacted the participants' sense of post-secondary readiness for work or for college. With the assistance of the CTI administrator, a pool of potential subjects was identified from which a sample was drawn. A demographic survey (Appendix B) was sent to all 237 CTI graduates who are in their first year of post-secondary life. The results of the survey were used to narrow the sample to 10 individuals − five individuals who followed a post-secondary path of college and five who entered the workforce directly. The researcher focused in particular on the quality of answers provided in question nine, What did you find beneficial about your experiential learning in high school? The researcher narrowed the sample but looked for a variety of programmatic focuses that would provide information-rich (Patton 2002) data such as auto body repair, cosmetology, nursing, and so forth. Luckily, the respondents who responded to the questionnaire had a variety of focuses and identified readiness factors that were enhanced by their experiential learning experience (question 9).

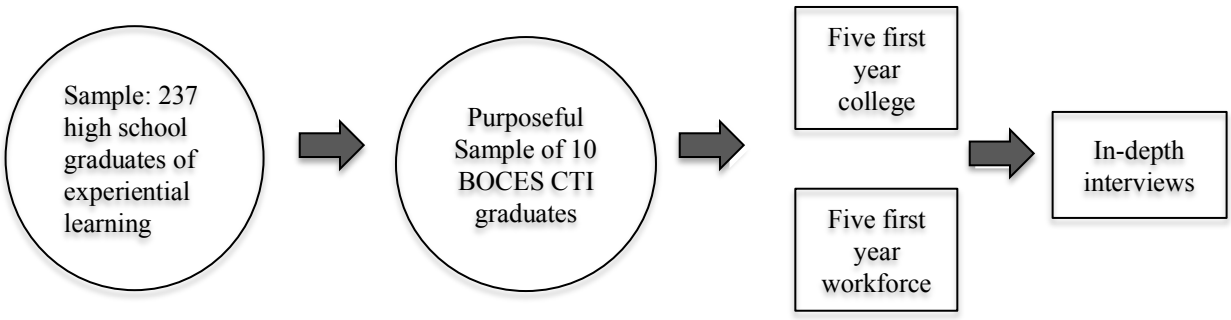

Figure 3. Sampling design

Participants

As Creswell (2013) indicated, "it is essential that all participants have experience of the phenomenon being studied" (loc 3045 of 9140). Going to high school is the typical venue by which young people experience the final preparations for post-diploma life. Young people most commonly attend public high school but private schools "enroll 10 percent of all PK-12 students" (CAPE, 2016) and 3.4 percent are home schooled (Smith, 2013). Experiential learning opportunities are available to varying degrees in public high schools and the researcher is exploring the essence of the high school experience in terms of student preparedness for post-secondary study or careers relative to their exposure to an experiential learning program. More specifically, in New York State, public school districts are supported by BOCES and in the case of Dutchess County, CTI. It provides a comprehensive and organized form of experiential learning that might not be otherwise available to school districts by themselves. Students are able to explore careers and receive training and in some cases credentialing in a particular career pathway (Shron, 2016).

An overview of the results of the demographic survey (Appendix B) can be seen in Table 7, Study Participant Demographics. As illustrated in Table 7, participants included five CTI graduates in their first year of college and five graduates who have pursued work in a career right after graduating from high school and CTI. Three graduates were working in a career field and attending college at the same time. The variety of focus areas is listed and if an individual participant is working, an indication of whether or not the work is related to the participant's area of study at CTI is made with a yes or a no. Finally, an X marks the completion of the instruments by each participant.

Table 7

Study Participant Demographics

	Pseudonym and Code	Enrollment	Focus	Related Work Focus?	Survey	Int-1	Int-2	Int-3
1.	Adam (CA-4)	Workforce*	Culinary	Yes	X	X	X	X
2.	Becky (CO-6)	2-yr college & working	Cosmetology	Yes	X	X		
3.	Carrie (CO-7)	2-yr college & working	Nursing	Yes	X	X	X	X
4.	Didi (CA-5)	Workforce	Cosmetology	Yes	X	X	X	X
5.	Eileen (CA-2)	Workforce	Culinary	No	X	X	X	
6.	Fran (CO-4)	2-yr college	Early Childhood	No	X	X	X	X
7.	Gina (CO-1)	2-yr college & working	Nursing	Yes	X	X	X	
8.	Heidi (CO-3)	2-yr college	Cosmetology	No	X	X	X	
9.	Isaac (CO-5)	2-yr college	Auto Body	No	X	X	X	X
10.	June (CO-8)	2-yr college	Early Childhood	No		X	X	X**

Note. *participant still enrolled in high school GED program; **phone interview; Int – Interview

Description of the Participants

There were 10 total participants who volunteered to co-research the phenomenon of college and career readiness. A variety of five different experiential learning program focuses of study were represented by the sample including auto body, cosmetology, culinary, early childhood, and nursing. Five of the participants were engaged in a two-year college program of study and five participants were already in the work world employed in their respective areas of study. Three of the 10 were both employed in their area of focus and studying in college. One participant was attending a GED program because he had not graduated yet even though he had completed the CTI program. What follows is a brief description of each of the participants using their assigned pseudonyms.

Adam participated in the culinary focus at CTI because he "was passionate about the field of study" and felt that he "would get more hands-on experience in the field of study, rather than reading from a textbook all day." While Adam completed his BOCES program in culinary arts, he did not graduate on time because he lacked the necessary credits at his home high school. Instead of returning to his home high school, he enrolled in a GED program through the BOCES alternative high school. Adam worked for a large retail supermarket preparing samples for customers and selling food products and was able to use some of his training in the safe handling and preparation of food. While he had some aspirations to attend culinary school, he did not have a realistic plan for how to pay for it. Adam was a willing participant in three interviews, the second of which was interrupted because he had another obligation but was finished at the next interview session right before the third interview.

Becky was the first participant interviewed and she seemed to hold a lot of promise as a rich source of data. However, she was not able to participate in subsequent interviews because she was overburdened by work and school. She chose to study cosmetology because "it's currently helping me pay for college" and she "wanted to have a decent job while in college." Becky is the product of first generation immigrant parents who did not attend college but have established a life in the United States. She is the first in her family to attend college and her CTI program was completed for pragmatic reasons so that she could earn a cosmetology license and work in the field to support herself and pay for college. She decided to pursue a teaching degree in earth science in college.

Carrie decided to pursue nursing through BOCES and is currently attending a two-year community college and working as a certified nursing assistant at a local nursing home. She decided to attend BOCES because she "thought it would be beneficial due to the fact that [she]

wanted to major in nursing in college." She participated in all three interviews and reported that her CTI experience helped her "learn a lot of information which made it easier for [her] to transition" into college.

Didi decided to study cosmetology at BOCES because she "wanted to be a hairdresser, but [she] also hated regular school." She was gregarious in all three interviews and as a result provided a hefty amount of useful data. Her dislike for traditional academics has steered her away from an interest in college study and she was satisfactorily employed at a hair salon. She explained that she found her BOCES experience beneficial because "the teacher was more passionate about her work and lessons weren't just memorization. There was depth, practice, and the knowledge that you were only there because you wanted it."

Eileen's area of focus at CTI was culinary arts. She talked philosophically about her dreams and her future, albeit unrealistically. She worked at a donut shop and was accompanied by her brother at both of the interviews in which she participated. Her high school experience was rocky and she revealed that she had gotten into trouble in high school but that BOCES had helped her graduate on time because she found the experience was "better than being in a classroom behind a desk, writing things down." She chose BOCES "to see what it takes to be a chef and what challenges you face to be the best of the best." She missed scheduled appointments for the third interview twice.

Fran studied in the early childhood program at CTI and chose to attend the program "to better [her] knowledge of child development." Following graduation, Fran attended a two-year community college also majoring in early childhood. She waffled a bit on what her college major was going to be, saying in the second interview that she was thinking of changing her major and studying to be an ultrasound tech. By the third interview, however, she decided she

needed to be more resolute in her choice and that early childhood was going to be "my final offer" because college costs money and she did not want to lose money being indecisive. Fran had originally begun to attend a four-year state college upstate but after two weeks became homesick and decided to come home.

Gina provided a lot of useful data in the two interviews in which she participated before she became incommunicative. She was the most driven of all of the participants and attended BOCES during high school because she knew she would be able to graduate "with a well-paid full time job" and found it beneficial because "it wasn't like normal school. I learned what I actually needed to learn." Gina earned her certified nursing assistant (CNA) license through CTI and had already in high school mapped out her trajectory to become a nurse. She worked multiple jobs while attending a two-year community college to earn her RN with the ambition of someday becoming a pediatric surgeon.

Heidi participated in two rounds of interviews until life became so busy that she could not do a third. She studied cosmetology at CTI because she "was very interested in hair and makeup" finding it better than "spending a lot of money on beauty school." She found inspiration in an uncle who was a successful business owner and this gave her a similar entrepreneurial ambition and inspired her to study business at a two-year community college.

Isaac studied auto body at CTI in order to "learn how to weld and paint vehicles" but was so intimidated by the possibility of making mistakes on someone's expensive vehicle that he switched focus to communications once he got to his two-year community college. Still, he reported that he benefitted from his BOCES experience by "learning how to repair body damage on vehicles," something he still values as a skill. Isaac participated in all three rounds of interview and hopes to pursue a career in broadcasting as a producer.

June became a participant differently than the other participants. Although she was a BOCES graduate in this same cohort, she had not answered my mailings for some reason but was contacted after one of the other participants suggested that she might be interested in participating. Once I reached out to her personally, she gladly volunteered to co-research and ended up completing three rounds of interviews, the last of which, however, conducted over the phone. June had an interest in early childhood education because she had exposure to a developmentally disabled family member and had taken an interest in teaching him and spending time with him. This pre-exposure gave her an interest in pursuing teaching as a career and so that became her major at her two-year community college that she hoped would lead to a four-year college experience. June was attempting to land a job in the field during the interview period but had not yet procured one and instead was working at a chain donut shop as a shift manager.

Data Collection

A researcher-created interview protocol was used that was designed to procure data that would provide insight about student perceptions relative to their readiness for post-secondary study or work life based upon their experiential learning involvement. Four instruments were utilized to gather data for this study: a demographic survey (Appendix B), an Interview Instrument 1 (Appendix C), an Interview Instrument 2 (Appendix D), and an Interview Instrument 3 (Appendix E). What follows is a description of the instrumentation along with the procedures used to gather the data and a data collection time line located in Table 8.

Demographic survey

Appendix B contains the demographic survey that was administered to a sample of the population. The researcher-created survey was titled, "Career Readiness Survey," and it was

comprised of 15 questions. The survey was used to identify a sample of the population (n = 10) that had the greatest potential for generating useable data relative to experiential learning as preparation for the post-secondary experience. The researcher identified participants from the survey who met three criteria (a) participants who had engaged in experiential learning; (b) participants who were either working or studying in their fields of interest; and (c) participants who had experienced a variety of areas of focus. Participants who met the criteria and who agreed to participate were chosen to be interviewed. Thus, the sample met the requirements for the phenomenological design because it satisfied the researcher's desire to interview several times participants who had experienced deeply a hands-on learning program

First round of interviews

The qualitative Interview Instrument 1 (Appendix C) consisted of a list of 15 researcher-developed questions designed to maximize the collection of data in order to answer the research question. In semi-structured interviews "what is needed is an adequate number of participants…to answer the question posed at the beginning of the study" (Merriam, 2009, p. 80). Thus, the researcher conducted semi-structured interviews where the researcher assumed that "individual respondents could define the world in unique ways" (Merriam, 2009, p. 90), in this case, the world of college and career readiness following a shared experience in an experiential learning environment.

Second round of interviews

In the second round of interviews, the researcher used Interview Instrument 2 (Appendix D) and asked more questions – 19 total – that were designed to delve deeper into the phenomenon with participants.

Third round of interviews

Finally, participants from the sample who continued to be available and who were willing to be interviewed one last time (n = 6) participated in a third follow-up, in-depth, interview using Interview Instrument 3 (Appendix E). This instrument contained fewer questions – a total of three − that were concentrated on the key essences of the high school experience relative to post-secondary readiness.

Data collection procedures and timeline

Participant permissions were sought from the subjects themselves since they were of majority age and could authorize their own participation (see Appendix H, Letter of Consent). Then the procedures for conducting phenomenological research, as described by Moustakas (1994) and introduced above, were utilized. Table 8 is a timeline of the data collection from the genesis of the study as an IRB proposal through the interview protocols and subsequent validation of the study findings.

The demographic survey (Appendix A) was mailed to all 237 potential participants along with an introductory letter from the CTI principal (Appendix F), an inquiry letter from the researcher (Appendix G), and a self-addressed, stamped envelope for the convenience of respondents. Once 14 of the surveys were returned, they were read to identify potential participants to be interviewed three times each. Ten participants were identified because they satisfied the sampling criteria described in the previous Sampling section and because they represented the greatest potential for providing the researcher with informative data.

All 10 subjects were interviewed using Interview Instrument 1 (Appendix C). The interviews were conducted face-to-face, they were approximately 20-60 minutes long, and they took place at a mutually convenient site. Accordingly, most of the interviews took place at a

local community college library where the majority of the participants attended classes. One participant was interviewed at a local diner, one at a coffee shop, one at the public high school where the researcher works, and one at a community library close to where a participant lived and worked. Each of these data collection sites provided a private area for the interview. Interviews were recorded on a digital recording device and a backup iPhone recorder was used in the event that the digital recorder failed for some reason. Interviews and follow up interviews were employed so that the researcher could delve deeply into the essence of college and career readiness. The collection of data and the analysis of the data happened simultaneously and included the use of constant comparison practices. That is, data collection and data analysis happened simultaneously, aptly described by Yazan (2015) as a "concurrent and interactive process…that qualitative methodologists advocate for [as] an emerging design" (p. 145). In-person, semi-structured interviews of between 20 and 60 minutes were recorded on a digital recorder and the resulting sound files were uploaded to one of two professional transcribers. Constant comparison brings together data collection, coding, and analysis to create codes and findings while staying intimately connected to the data (Strauss, 2008). As a result of this methodological approach, the researcher narrowed the focus of the phenomenon and explored deeper and deeper into its essence.

Follow-up, semi-structured interviews using the Interview Instrument 2 (Appendix D) were then conducted with nine of the 10 participants face-to-face. According to DiCocco-Bloom and Crabtree (2006), semi-structured in-depth interviews "are generally organised around a set of predetermined open-ended questions, with other questions emerging from the dialogue between interviewer and interviewee/s" (p. 315). The researcher's style was conversational, but deliberate. While all questions were asked of all participants, the researcher attempted to use the

questions to create a conversation that provided fertile ground for the co-construction of meaning whereby a fuller picture of readiness could emerge. For example, in question 18, participants were asked, "Do you have any closing thoughts about how your hands-on learning experience in high school prepared you (or did not prepare you) for everything you faced this year?," a question that represented a foretaste of the pointed, smaller-in-number questions that were asked in the third interview round. The semi-structured format allowed for the researcher to facilitate an open dialog with respondents that was more likely to garner rich data about the relationship between readiness and experiential learning. The emergent nature of finding statements from the data required the researcher to maintain an openness to the data by simultaneously collecting and analyzing the data as it was produced, also known as constant comparison (Strauss & Corbin, 1998).

Based upon data collected from the previous two interviews relating to questions 1 and 6 of instrument 2, six participants who were available and willing were interviewed for approximately 15 minutes using the third interview instrument. While there were fewer questions, the questions were more pointed and overt in asking about the phenomenon. Member checking was employed at this stage as well in an effort to establish trustworthiness of researcher interpretations (Merriam, 2009).

Table 8

Data Collection Time Line

Objective	Process	Date
Obtain Institutional Review Board (IRB) approval	Apply to IRB for approval of study	December, 2016
Identify purposeful sample	Administer demographic survey	January, 2017
Refine interview instrument	Identify criteria and questions based on survey analysis	January, 2017
Recruit participants; complete consent forms	Work with CTI staff, distribute letters of consent	January, 2017
Interview participants, Interview Instrument 1	Set up schedule and location for interviews	February-April, 2017
Interview data analysis	Careful review of interview transcripts to generate open codes	Spring, 2017
Follow-up interviews, Interview Instruments 2 and 3	Select subjects will be re-interviewed to gather additional data	Spring, 2017
Further analysis and coding	Axial coding will follow initial coding and analysis	Summer, 2017
Validation of study findings	Have fellow researchers review procedures for validation	Fall, 2017
Record research in a systematic method	Generate field notes and memos throughout the duration of the study	Duration of study
Reflexive journal	Researcher will keep writing throughout the study to bracket personal bias	Duration of study

Summary of Data Collection

This study used the following data collection techniques: (a) a demographic questionnaire (Appendix B) sent in a mailing to 237 CTI graduates from the class of 2016 (January 2017); (b) semi-structured Interview Instrument 1 (February through June 2017); (c) follow-up semi-structured Interview Instrument 2 with key participants (April through June 2017); (d) final follow-up semi-structured Interview Instrument 3 (June 2017).

Finally, interpretations were made in the final stage of research once an analysis of the interview data had been conducted. Table 8 provides details about the qualitative research study that includes a timeline used for completing the objectives of the study.

Cessation of Data Collection

The researcher's use of a data collection protocol that utilized three levels of interviews was designed to maximize the access of available data regarding the perceptions of first year post-secondary participants who were in the thick of figuring out a post-secondary existence. Seidman (2013) discusses the three-interview series because "it allows both the interviewer and participant to explore the participant's experience, place it in context, and reflect on its meaning" (p. 20). Accordingly, the researcher theorized that data saturation would be best reached through follow-up interviews whereby participants could be given follow-up questions and an opportunity to elaborate on earlier statements about their perceptions of college and career readiness. Specifically, they were asked questions about their perceived readiness to face post-secondary lives as a result of their experiences at the Career and Technical Institute where there is value placed on experiential learning experiences and curricula that incorporate hands-on learning. The researcher found that three levels of interviews provided ample evidence to explore with participants their perceptions of readiness and to co-create meaning from those

experiences and their impact on readiness. In some cases, two interviews were sufficient. In all cases, even a single interview provided useful data that could be applied to the study findings to allow the essence of the participants' experience to emerge.

Data Analysis

The qualitative method of analysis will be accomplished by following phenomenological procedures detailed by Moustakas (1994). Before interviews are conducted, Moustakas (1994) asserted that the researcher must enter into "a process of setting aside predilections, prejudices, predispositions, and allowing things, events, and people to enter anew into consciousness (p. 85)," a process he names "Epoche" (p. 85). Simply put, the researcher must clear his or her mental palate of preconception so that the researcher is open to all possibilities derivable from the data. After "bracketing" or setting aside these prejudgments, the researcher is encouraged to apply what Moustakes (1994) terms "phenomenological reduction" which Merriam (2009) describes as "a process of continually returning to the essence of the experience to derive the inner structure or meaning in and of itself. We isolate the phenomenon in order to comprehend its essence" (p. 26). The researcher conducted 20- to 60-minute interviews with five college freshmen and five first year workers and then used an open coding system where findings were established based on a close and extensive reading of the interview transcripts, line by line and word by word. Through multiple readings of the interview transcripts alongside reflexive journal writing and through the constant comparison method of analyzing data while simultaneously collecting additional data, findings emerged (Strauss and Corbin, 1998). The researcher attempted to "gaze significantly . . . on the thing itself, its presence and elucidation" (Moustakas, 1994, p. 91). The researcher continually stayed open to different ways of viewing the emergent themes so as to engage in what Moustakas (1994) described as "horizonilization," or viewing the

phenomenon from varying perspectives as one might a sculpture in an art gallery. "Horizons are unlimited. We can never exhaust completely our experience of things no matter how many times we reconsider them or view them" (Moustakas, 1994, p. 95). The researcher was tasked with identifying and "clustering" the various perspectives into findings that emerged, using them in conjunction with the researcher's bracketing, and incorporated the reflections of the subjects themselves to construct a rich description of the phenomenon. The researcher worked towards "the construction of a complete textural description of the experience" (Moustakas, 1994, p. 96).

The researcher's approach to data analysis followed Moustakas' (1994) theoretical descriptions of phenomenological analysis that he called phenomenological reduction where he referred to the Transcendental-Phenomenological Theory that originated with Edmund Husserl. Moustakas (1994) was frequently referred to by qualitative theorists and researchers such as Merriam (2009), Patton (2002), and Gall, Gall, and Borg (2003), and his well-documented procedures for phenomenological reduction have been employed in this study. Accordingly, the researcher followed Moustakas' (1994) approach to analyzing the data represented by interview transcripts generated in the spring of 2017 that included epoche, phenomenological reduction, imaginative variation, and synthesis (pp. 84-101). Patton (2002) outlined the steps that comprise Moustakas' (1994) "heuristic inquiry" process for phenomenological analysis: "immersion, incubation, illumination, explication, and creative synthesis" (p. 486). Moustakas (1994) provided some guidelines as to the processes to be employed in the phenomenological model and methodological guidelines for collecting and analyzing data. He suggested that these processes include epoche, or the setting aside of prejudgments and biases that, unless properly bracketed, might unduly influence the data gathering at the point at which that research is gathered, namely the interview. Like Moustakas (1994), Merriam (2009) used the phrase, phenomenological

reduction to define the process by which the data are boiled down to codes, themes, and ultimately finding statements. Moustakas (1994) detailed the idea of imaginative variation, a phrase that he used to describe how the researcher capitalizes on looking at the phenomenon from different perspectives in order to ascertain its essence.

The type of data produced in this study was qualitative and it was collected exclusively through semi-structured interviews and follow-up interviews. As illustrated in Figure 4 – Data Collection/Analysis, analysis of 26 interview transcripts occurred recursively through constant comparison analysis throughout the interview process. The arrows indicate the flow from left to right of the initial data gathered from the demographic survey to the subsequent interview instruments. Meanwhile, constant comparison analysis continued in between each of the interview stages − represented by the darker shaded arrows − where data collection informed data analysis. Ultimately, the final description resulted from the ongoing analysis, represented by the final rectangular box labeled, Final Data Analysis and Resulting Description. Initially, the researcher used an online service called Transcribe.com but then found a more affordable option through a private professional transcriber who had a secure Drop Box account where files could be confidently uploaded confidentially.

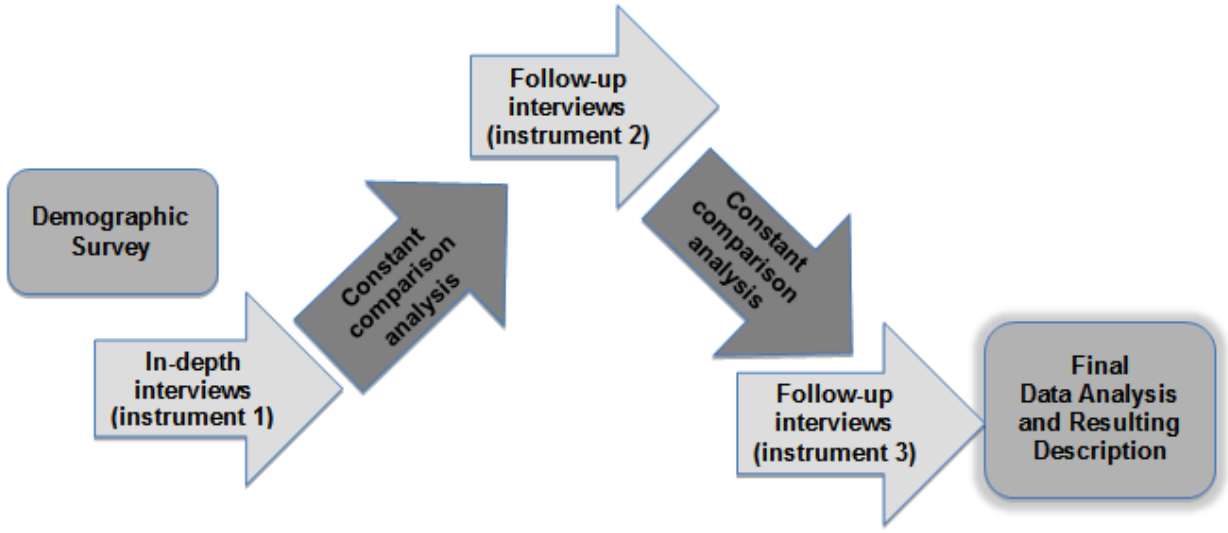

Figure 4. Data Collection / Analysis

After each level of three levels of interviews, the researcher initially read through each resultant transcript quickly and, as suggested by Patton (2002), underlined key phrases and words of interest to create some general topics, categories, and an overall initial impression of the participants' thoughts about the phenomenon of readiness. For example, Figure 5 depicts one transcript page with underlines of key text and the accompanying coding annotations in the margin. Heidi, in interview CO-3-1 said, "because you have to present a lot in college and some kids hate reading out loud, like a lot of kids, so maybe something like that would help them build more confidence and stuff" (185-187). The researcher underlined "you have to present a lot in college" because the participant identified a skill that to her signified readiness. Also underlined is, "help them build more confidence and stuff" (CO-3-1, 185-187) because the participant made reference to confidence, a word that the researcher identified as potentially important relative to readiness, further exemplified by the annotation, "confidence," a word that would become a singular open code as the analysis unfolded. In a second interview with the same participant,

Heidi (CO-3-2), talked again about confidence and shared that a remedial college preparation summer course called Smart Start had helped her to be ready for college-level work and the researcher consequently underlined what she said that was found salient: "I think Smart Start really helped me a lot" and then "I really got to know everything before the first day, so that helped a lot" (461-462). In the margin, the researcher wrote some initial raw codes that amounted to two words, "preparation" and "confidence" (Figure 5).

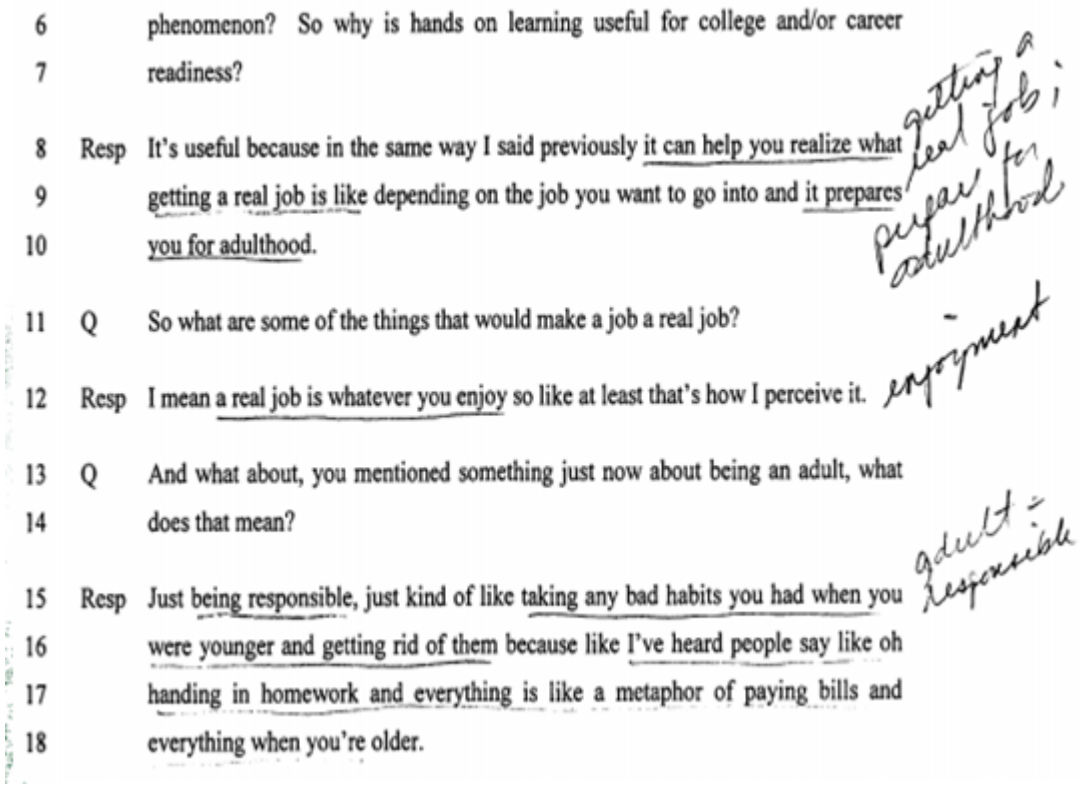

Figure 5. Initial Coding

What followed was the composition of a narrative summary of the transcripts by the researcher who closely examined the words and sentences of the participants and summarized the main thrust of their perceptions of readiness for post-secondary lives. An example of an interview summary for interview CO-3-2 can be found in Appendix R – Sample Interview Summary. It reflects that certain topics began to emerge from the transcript through successive

readings. For example, CO-3 talked a lot about writing and how being able to write and use MLA format were important readiness factors for her. One might deduce that she must not have been completely ready for college in terms of writing skills because she was placed in a remedial summer course called Smart Start to bring her writing skills up to college standards. Other important readiness factors were also identified and this was reflected in the summary. For instance, the researcher wrote, "CO-3 also identified some challenges inherent in college life like time management, organization, seeking help when she needed it, studying hard, paying attention in class, and balancing academic life with family life" (Appendix I). In addition, the researcher noted that the participant's experience at CTI was instructive in helping her understand what she did not want to pursue as a career, an idea that other participants also noted and that would develop into an open code. The above process described the initial phases of data collection.

After an initial reading of the transcripts to identify possible topics and important phrases, the researcher conducted a line by line review of the transcripts "to actually start the formal coding in a systematic way" (Patton, 2002, p. 463) and with the aid of HyperResearch software (Researchware Inc., 1997-2016) – as depicted in Figure 6 − open coding of the transcripts was conducted by further identifying key words and phrases and creating corresponding codes that eventually amounted to a code book of 251 different codes (Appendix K). Once this body of codes emerged from the initial coding regimen, a funneling process was employed to boil down codes and place them in coding groups or buckets where commonality was found. Glaser (2008) described this process as "reduction," a procedure that enabled the researcher "to discover underlying uniformities in the original set of categories or their properties, and can then formulate the theory with a smaller set of higher level concepts" (p. 7).

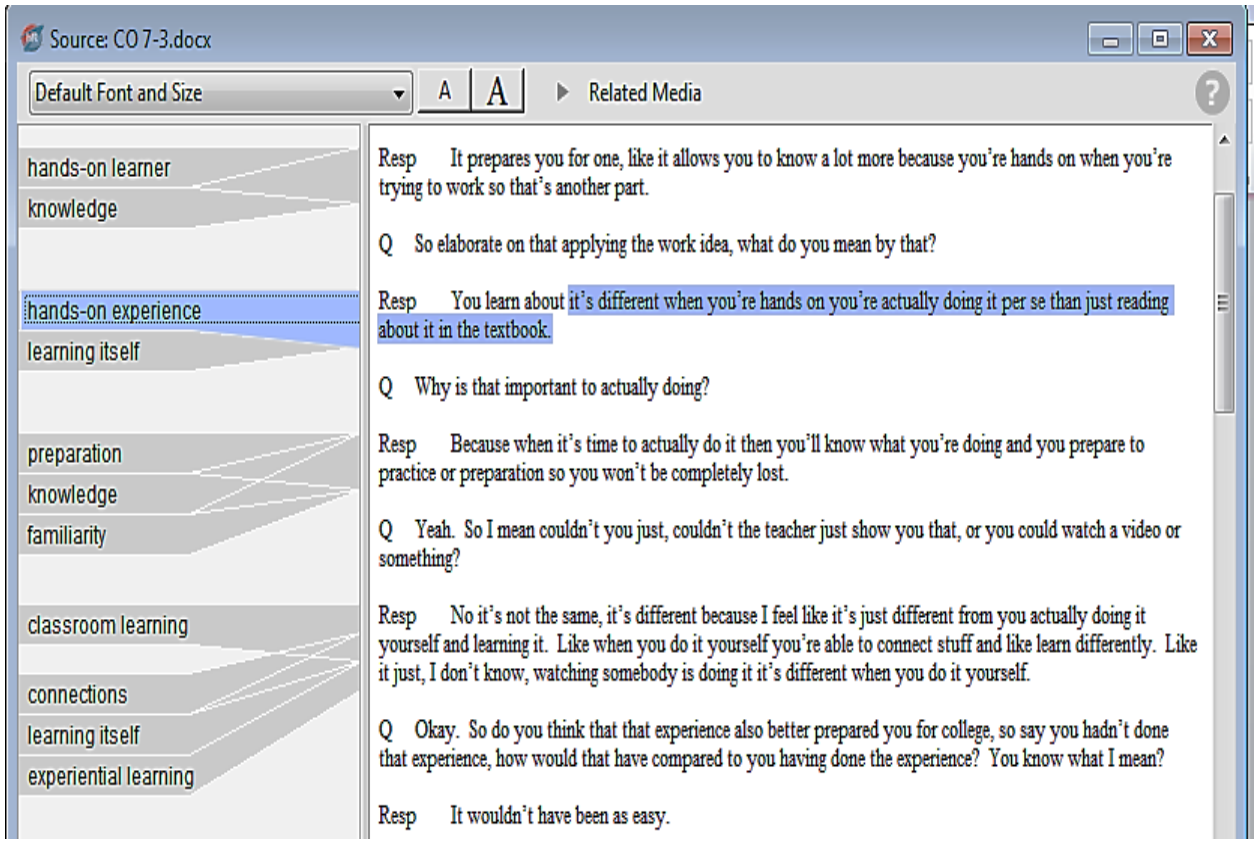

Figure 6. HyperResearch coding image

Redundant and/or synonymous codes were grouped together or combined to improve the density of the coding groups in order to assist in identifying salient findings. The researcher shared with participants the narrative summaries in order to ascertain if he was being accurate about the participants' perceptions, also known as member checking (Appendix J and Appendix O). For the most part, participants reported that the narratives were accurate. In one case, the participant Didi indicated that one quote made was inaccurate and offered a correction. Didi also corrected a piece of data that may have been "mis-implied" about the licensing process, that the cosmetology license was not issued by CTI rather it was issued by the state of New York. CTI, Didi corrected, provided what students needed in terms of requirements and training that would

make students eligible for a cosmetology license. Otherwise, Didi reported that it was "very good; very accurate" (Appendix O).

The same procedures were then applied to the second level of interviews. The researcher designed the second interview instrument to dig deeper into the phenomenon with participants and co-produce meaning from their experience. Again, narrative summaries were made of level two interviews and initial coding followed using coding HyperResearch software. A third level of face-to-face interviews then took place with five of the participants similar to the other levels of interviews but with more pointed questions of fewer quantity. A sixth level three interview happened over the phone. Lastly, a seventh level three participant, CO-3, could not meet again because of a family emergency and agreed to answer questions through email.

Initial coding through HyperResearch led to 251 codes (Appendix K) that were later grouped into 16 code groups to better consolidate them and create useful categories. For example, as illustrated in Table 9, 21 codes that appeared to be related to one another were grouped together through HyperResearch. Once 15 other groups formed, some groups were eliminated because of low frequency density. For example, the code group CHANGE was comprised of seven codes and the overall number of references to each of its codes added together equaled 49. Only one of the singular codes had a double digit frequency, that of "realization" with 16 mentions. A frequency average was then computed to determine how dense this code group was and, as a result, the researcher found it had a comparatively low overall frequency average of 7.00 and it was eliminated. By contrast, the code group, College planning/Career planning, contained 21 codes with many singular codes such as "career field" (20), "career planning" (23), "college" (45), "decision" (31), "license" (29), and "preparation" (40) having double digit frequencies. Overall, the code group, College planning/Career

planning, had a total of 21 codes with 338 references giving it an average of 15.36, making it the second highest frequency density overall after the highest grouping, Exposure, that garnered an 18.29 frequency density and is listed in Table 9.

Table 9

Example of the Code Grouping Process

Code Group	Code
Exposure	apprenticeship
	background
	business plan
	case study
	clinicals
	experience
	experiential learning
	exposure itself
	familiarity
	getting your feet wet
	guest speaker
	graduates
	hands-on classes
	hands-on experience
	have in common
	immersion
	learning what one wants does not want to do
	learning what one wants to do
	observation
	offsite location
	real world

Once open codes were consolidated into 15 code groups, the researcher wrote by hand the frequency of mentions of each code as indicated in HyperResearch and depicted in Figure 7, and then added them up together. Other code groups were created according to the same procedure and are detailed in Figure 7 and in Appendix T.

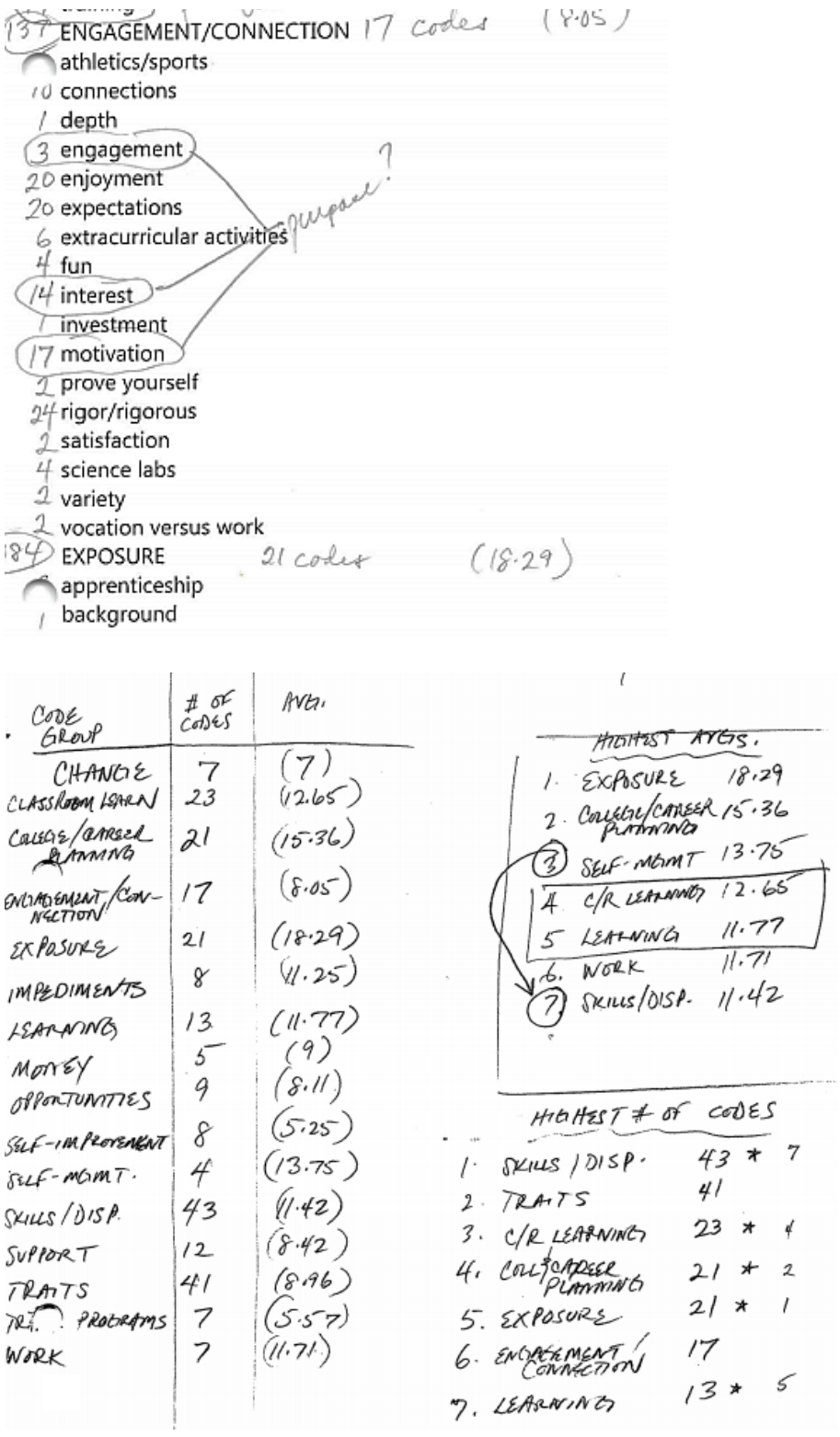

Figure 7. Code Tabulation and Density Calculations

For a full detail of the coding process, from raw data to final codes, please see Figure 8. Figure 8 illustrates from left to right the progression from raw data to open codes to code categories to themes and finally the major finding statement and four sub-finding statements.

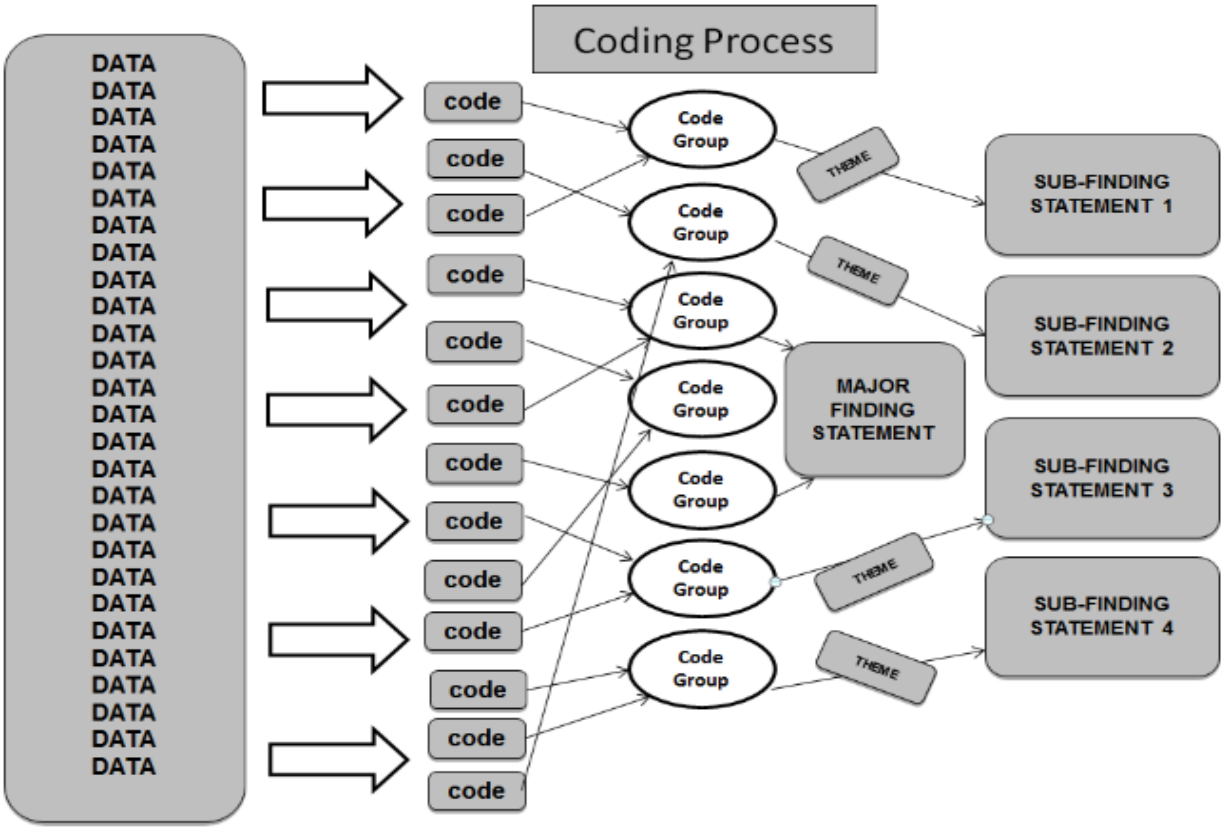

Figure 8. Coding Process Diagram (adapted from Saldaña, 2016, p. 14)

HyperResearch contained a feature whereby the user can print out alphabetically by code the textual references made to each code and this became indispensable in examining participant perceptions of their readiness. Four finding statements emerged from a mind mapping exercise on a large whiteboard – depicted in Figure 9 – whereby the four codes with the highest average frequencies, Exposure, College and Career Planning, Learning, and Skills/Dispositions, were

distilled and further consolidated from the seven highest average code groups. This was then compared to the highest number of codes garnered by each group (second image in Figure 7) with Skills/Dispositions at 43 (with the seventh highest average), Traits at 41, Classroom Learning at 23 (fourth highest average), College and Career Planning at 21 (second highest average), Exposure at 21, Engagement/Connection at 17, and Learning at 13 (fifth highest average).

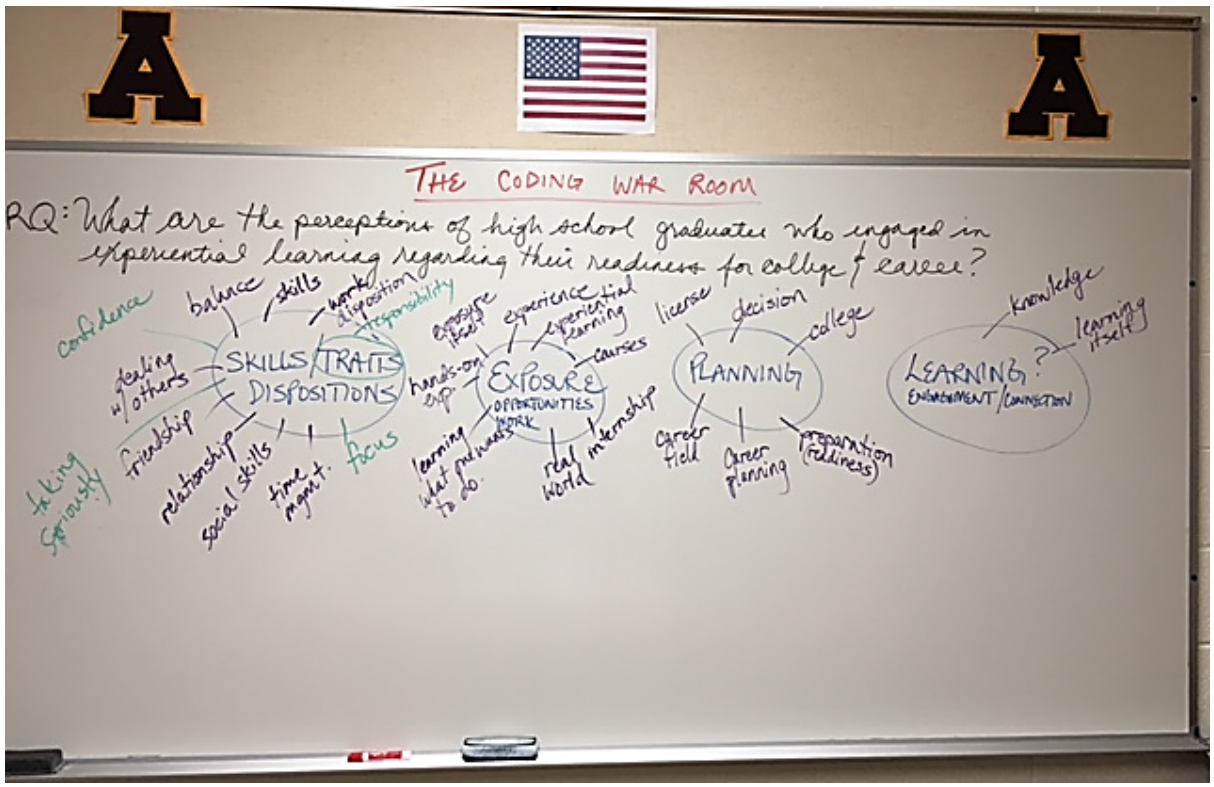

Figure 9. Mind mapping of code groups

In order to lend transparency to the process for generating coding categories (Anfara, Brown, & Mangione, 2002) that eventually evolved into finding statements, the researcher created an open coding matrix with three columns: Open Code, Properties, and Examples of Participant Words (Appendix L). This matrix verified the categories by conjoining open codes with associated properties, largely based on related codes found within the coding groups and

supported by actual words uttered by participants in the interview process. The chart represents a categorization procedure that not only helped to illustrate the thinking that led to categories but also helped the researcher eliminate any open code that could be subsumed in another open code category. For example, in the open coding matrix in Appendix L, "support" was listed initially as an open code but did not seem to have an ample amount of data to lead to a theme. Instead, it would be later incorporated into finding statement four, Learning, as "teachers" and "adult support." Thus, the open code, support and accompanying properties and participant words was eliminated as indicated by the strikethroughs. By contrast, Exposure remained as a viable open code because it contained several properties – getting a feel for it; feeling of purpose; familiarity; confidence; leads to readiness – that lent credence to its significance. Its viability is further underscored by participant words, "I think the hands-on learning itself gives you a lot more feeling of purpose for your learning" (CA-5-3) that supports the properties of the open code. Further illustration of this analytical reduction can be seen in Appendix L.

A second level of analytical transparency was evidenced in an additional comparative coding process (Appendix M) whereby findings were supported by category codes that were further girded by multiple examples from the participants themselves. This additional layer followed the recommendation of Anfara, Brown, and Mangione (2002) who suggested that the researcher provide "analytical openness on the grounds of refutability and freedom from bias" (p. 28). The examples from participants in Appendix M were represented by actual phrases from their words or researcher paraphrasing of participant words. Again following the sub-finding of Exposure and sister sub-sub-findings of Experience and Hands-on Learning, supportive category codes emerged, as seen in the rows labeled "instances" in Appendix M. Exposure was supported by the category code, Exposure Itself and the coding instances, (56), are next to it in parentheses.

In the next column labeled Exposure, additional category codes that supported Exposure are Readiness, with a frequency of 17 times coded in the transcripts, and Readiness for the work world, cited 11 times. In the rows that follow are words and phrases that document instances that further support evidentially the category code and findings. For instance, Exposure itself is supported by Feel for work that is mentioned by four of the participants, Didi, Gina, Isaac, and Heidi. Similarly, Feel for college is instanced by Heidi, June, and Fran. Lastly, Getting my feet wet is mentioned by Gina. What follows in Appendix M is the same procedure done for each of the additional categories that evolved into finding statements.

Based on this additional coding procedure used to analyze the interview data - first through an open coding process (Appendix L) and then through a secondary charting process used to graphically illustrate participant perceptions of their readiness (Appendix M) – an overarching finding statement emerged along with four sub-finding statements.

- Major Finding Statement: Participants in a hands-on learning experience perceived themselves as being more ready for college and/or careers then if they had remained exclusively in a traditional high school setting.
- Sub-finding Statement 1: Participants perceived an enhanced level of readiness as a result of the EXPOSURE they encountered that gave them familiarity with their focus area that resulted in confidence and engendered a sense of purpose and self-efficacy.
- Sub-finding Statement 2: Participants perceived that their hands-on learning experience served as PLANNING for their college and career field, confirmation of college and career choices and decisions, and led to confidence in college and career paths.

- Sub-finding Statement 3: Participants perceived that they developed valuable WORK DISPOSITIONS that were applicable to college and career experiences like social skills, time management, and an ability to make friends.
- Sub-finding Statement 4: Participants perceived that the non-traditional experiential nature of hands-on learning, coupled with supportive teachers, led to LEARNING readiness skills such as useful study habits that could be applied to their new college and/or career settings.

Trustworthiness

One major limitation or concern in a qualitative study is that of bias of the researcher. In this case, the researcher acknowledged a passion for the topic of transition from high school to post-secondary pathways and the researcher was interested in improving how well students were prepared for success after high school. Through phenomenological interviews and follow-up interviews, the researcher capitalized on the reflections of recent graduates about how they perceived their readiness for the new challenges they experienced early in their college careers or work lives. The researcher was not searching for a particular answer; rather, the researcher was interested in constructing the essence of the phenomenon of college and career readiness with the subjects being interviewed based on their personal experiences in the worlds of college and employment. Throughout the study, the researcher kept an open mind about what ideas would emerge from subjects based on their post-high school experiences relative to how prepared they felt in their new circumstances and settings. This openness was facilitated through Moustakas's (1994) notion of epoche through reflective bracketing by the researcher. Similarly, a reflexive journal was kept throughout the research process and can be seen in Appendix N.

Lincoln and Guba (1985) identified four areas of trustworthiness that were maintained throughout the study: credibility, transferability, dependability, and objectivity. Each are discussed below.

Credibility

Credibility is defined by Cohen and Crabtree (2006) as "confidence in the truth of findings" and this confidence was upheld through "prolonged engagement" ("Lincoln & Guba's Evaluative Criteria" section) which means that the researcher worked to build trust with the participants when they were interviewed so as to co-create meaning from their experiences in applying skills and knowledge from high school in post-high school settings. Credibility was also upheld through "peer debriefing," a technique whereby a colleague reviewed the analyses for any implicit bias and examined where the researcher tried to "test and defend emergent hypotheses and see if they seem reasonable and plausible to a disinterested debriefer" ("Peer Debriefing" section).

Transferability

Transferability is affirmed when the researcher establishes "the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings" (Trochim, 2006, p. 1). Still, as Merriam (2009) illustrated, the job of the researcher in a qualitative study such as this is to provide a full enough description of a particular experience so that the reader is able to generalize to other situations. "Every study, every case, every situation is theoretically an example of something else. The general lies in the particular; that is, what we learn in a particular situation we can transfer or generalize to similar situations subsequently encountered" (Merriam, 2009, p. 225). Every effort was made to be cognizant of the particular demographic makeup of the setting from which the students being interviewed lived and the

transferability of the procedures for collecting data to other demographic settings. Participants all participated in the CTI program but the researcher did his best to choose a sample that included students from a variety of backgrounds who pursued a variety of focuses in their experiential learning programs. Multiple interviews of the participants ensured that a sufficient body of data was available so as to "understand the particular in depth, not to find out what is generally true of the many" (Merriam, 2009, p. 224).

External validity is defined as "the extent to which the findings of an experiment can be applied to individuals and settings beyond those that were studied" (Gall, Gall, & Borg, 2003, p. 374). In qualitative research, this is more commonly termed, transferability, and represents a different way of thinking about generalizability than one might in an experimental study. "In qualitative research, a single case or small, nonrandom, purposeful sample is selected precisely because the researcher wishes to understand the particular in depth, not to find out what is generally true of the many" (Merriam, 2009, p. 224). The qualitative researcher has several strategies that have evolved over time that are commonly used that render a sense of transferability and confirm trustworthiness. In this study, the researcher employed member checking, whereby the researcher took "interpretations, and conclusions back to the participants so that they could judge the accuracy and credibility of the account" (Creswell, 2013, loc 4678 of 9140). For example, in Appendix O, the researcher has reached out to a participant through email and invited him to read an attached researcher summary of the interviews. What follows, is the participant's response.

In addition, the researcher engaged in peer review with two other doctoral candidate colleagues conducting similar methodologies who asked "hard questions about methods, meanings, and interpretations; [this] provides the researcher with the opportunity for catharsis by

sympathetically listening to the researcher's findings" (Creswell, 2013, 4662 of 9140). Finally, the researcher employed another important strategy in a phenomenological study called "rich, thick description," a phrase that Creswell (2013) describes as follows: "With such detailed description, the researcher enables readers to transfer information to other settings and to determine whether the findings can be transferred" (loc. 4678 of 9140).

Dependibility

Dependability acknowledges that there is an expectation of variability in qualitative research and that that variability is recognized and tracked (Krefting, 1991). Naturally, the experiences of the subjects will vary because they will each have chosen different post-secondary paths. Additionally, while the basic nature of the high school experience is by and large the same, there is of course variability in the level of rigor that students encounter and engage in in their high school coursework. As a result, there may be some variability particularly in the academic sense. Students also have varied experiences in the experiential opportunities they pursue. Qualitative research places value on a "range of experience rather than the average experience" [so that the] "boundaries of experience or phenomenon" can be fleshed out fully (Krefting, 1991, p. 216). This range of experience was identified and explored in interview questioning through three levels of interviews.

Confirmability

Objectivity is the establishment of neutrality in a qualitative study. As such, it is incumbent on the researcher to be "transparent, making explicit the logic of inquiry used in the project" (Denzin, 2009, p. 149). One way to establish objectivity is to incorporate a level of trust between the researcher and the reader by being explicit about methodology and paying attention to maintaining credibility. Thus, the subjects interviewed were identified and described vis-a-vis

the experience of a practitioner, the researcher himself, who is charged with overseeing a course of study that prepares graduates for college study after high school. As a result, the inquiry was transparently described as one that investigated ways to make the high school experience better, stronger, and one that will lead to greater success in the next stage of academic or workplace pursuit.

Limitations

In qualitative research, it is imperative that the researcher discuss and make transparent trustworthiness strategies. Qualitative researchers over time have established strategies for doing so such as those described by Merriam (2009): triangulation, member checking, adequate engagement in data collection, reflexivity, and peer review.

Member checking is one method of establishing validity. Validity can be confirmed by having the respondents who were interviewed look over the researcher's findings to confirm whether or not they represent what the respondents saw as the truth. Through member checking, one can "solicit feedback on your emerging findings from some of the people that you interviewed" (Merriam, 2009, p. 217). Another credibility method is what Merriam (2009) termed, "adequate engagement in data collection" (p. 219). In order to construct a description that is credible, the researcher interviewed subjects who followed different courses of study and who represented as much "variation in the understanding of the phenomenon" (Merriam, 2009, p. 219) as possible. This was accomplished in this research study by interviewing multiple subjects who experienced a variety of experiential learning in different fields of study (i.e., nursing, cosmetology, auto mechanics, early education, and culinary arts).

Lastly, throughout the study, the researcher kept a reflexive journal (Appendix N) to transparently provide evidence that his own personal bias did not improperly affect the findings.

As Creswell (2013) pointed out, the purpose of the reflexive journal is to ensure that the "researcher's assumptions are made explicit, such as the researcher's own subjectivity" (loc 4739 of 9140).

Summary

In summary, this chapter provided an explanation of the methodology employed in the research study that focused on the phenomenon of college and career readiness as it pertained to participants (n = 10) who were graduates of an experiential learning program called CTI. The researcher utilized a phenomenological design that engaged in the qualitative process that included the collection of data through semi-structured interviews, bracketing of bias through epoche journaling, horizonalization, imaginative variation, and phenomenological reduction as detailed by Moustakas (1994), that included a three-series interview protocol (Seidman, 2013). Constant comparative analysis was employed during data collection and an emergent open coding process led to a major finding statement and four sub-finding statements. The researcher described a variety of strategies that included member checking, reflexive journal writing, and peer review to establish objectivity, credibility, transferability, that addressed trustworthiness in the study.

Chapter Four: Findings is the chapter that follows with an in-depth discussion of what specific findings emerged from the transcript data. It is organized with an introduction to the findings and then a focus on the major finding statement followed by the four sub-finding statements.

CHAPTER FOUR: FINDINGS

"I felt ready to take on my journey" (Eileen, CA-2-1, line 42)

Introduction

The purpose of the study was to examine the perceptions of readiness of high school graduates in their first year of either college or career or both. The researcher used a procedure for phenomenological analysis that progressed from open coding to emergent theme identification and finding statements through constant comparison analysis that ultimately led to a rich, thick description of the phenomenon. The data collection and analysis was focused on answering the following research question: RQ: What are the perceptions of high school graduates who engaged in experiential learning regarding their readiness for college and career? Chapter four is devoted to an explanation of the findings from the data collected using three interview instruments used in three separate levels of interviews.

Source of Data

The perception of greater readiness by participants that is attributable to their hands-on learning experience is validated by their words throughout the interview conversations that were held in the spring of 2017. Chapter four provides an explanation of the findings that emerged using data gathered from a progression of interviews held with 10 subjects during the spring of 2017. A modicum of data came from a demographic survey that was sent in the mail and returned to the researcher but the principal source of data came from a subsequent series of interviews held with participants. Of the 10 participants, two were male and eight were female. All of the participants were in their first year of post-high school life either engaged in a college experience, working in the field in which they studied in high school, or simultaneously working and attending college. As Table 10 illustrates, four of the participants were enrolled in college,

three were working in a career, and three were doing both. The participants all completed the initial survey (Appendix B) sent out with the letter requesting their participation from which certain demographic data were collected. Then, data were gathered when all 10 respondents participated in an initial interview using Interview Instrument 1 (Appendix C). Nine of the participants participated in a follow up, second interview using Interview Instrument 2 (Appendix D) when additional data were gathered. Six respondents participated in a third interview using Interview Instrument 3 (Appendix E) designed to further flesh out themes and arrive at the essence of the phenomenon and answer the overarching research question. While it was the researcher's intention to interview all of the participants three times, not all of them were available or willing to complete all three. In Table 10, each interview that the participants completed are listed and ordered by participant. Adam has four entries because the second interview was interrupted and had to be completed in two parts. All interviews were held in person with the exception of CO-8-3 because the participant had a family emergency and could not meet in person. Similarly, interview questions for CO-3-3 were answered via email after repeated attempts to meet in person were foiled. All participants were assigned pseudonyms used here to protect their identity and codes used to organize the interviews in which they participated and also protect their identity. Citations made to interviews refer to the specific line or lines referenced in each particular interview, or when line numbers were not available, page numbers. Minimal revisions of participant comments were made for readability and are indicated with brackets. Interview dates and interview durations are listed in

Table 10.

Participant Interviews

Participant	Interview	Date	Duration
Adam	CA-4-1	3/1/17	00:26:35
Adam	CA-4-2-1	3/29/17	00:42:58
Adam	CA-4-2-2	4/20/17	00:20:01
Adam	CA-4-3	4/20/17	00:13:19
Becky	CO-6-1	2/21/17	00:31:09
Carrie	CO-7-1	3/17/17	00:32:48
Carrie	CO-7-2	4/20/17	00:46:04
Carrie	CO-7-3	5/4/17	00:16:35
Didi	CA-5-2	4/26/17	01:26:15
Didi	CA-5-3	5/3/17	00:55:52
Eileen	CA-2-1	3/16/17	00:18:40
Eileen	CA-2-2	4/19/17	00:56:05
Fran	CO-4-1	2/22/17	00:37:21
Fran	CO-4-2	3/20/17	00:53:45
Fran	CO-4-3	4/19/17	00:25:26
Gina	CO-1-1	2/22/17	00:42:27
Gina	CO-1-2	3/20/17	00:53:33
Heidi	CO-3-1	2/27/17	00:40:39
Heidi	CO-3-2	3/22/17	00:53:27

(continued)

Table 10

Participant Interviews

Participant	Interview	Date	Duration
Isaac	CO-5-1	2/22/17	00:22:50
Isaac	CO-5-2	3/16/17	00:43:20
Isaac	CO-5-3	4/20/17	00:15:08
June	CO-8-1	4/5/17	00:38:02
June	CO-8-2	4/21/17	00:42:17
June	CO-8-3 (phone)	7/4/17	00:12:08

Terminology for Experiential Learning

The researcher chose to use the phrase, hands-on learning**,** in instruments and in general when talking with participants, because they may not have fully understand the phrase experiential learning. It was apparent that BOCES staff was more accustomed to using the former phrase. This modification was made to the interview instruments early on before interviews took place at the advice of the principal of the CTI who felt participants might not have a sense of the latter phrase. Hands-on learning is used interchangeably with the phrase experiential learning but the latter phrase is used more as an academic term that obviously emphasizes the presence of experience itself in learning. David Kolb (1984) explores and describes experiential learning in such depth that it is difficult to boil it down to a simple definition. However, he describes it in one instance as "the process of learning from experience that shapes and actualizes developmental potentialities" (Kolb, 1984, p. 133). Kolb's description is most fitting to this study as it is consistent with participant views that their experiences in the

CTI program gave them, in the researcher's words, "a leg up" (CO-8-1, 352) on other young people who might not have enjoyed experiential learning prior to college study or being in the workplace.

The Meaning of Readiness

The concept of readiness plays a prominent role in the research question. While the concept of readiness has been at the forefront of education research recently, it is something that has been discussed by educational researchers since the beginning of the modern American school system. John Dewey (1938) himself describes it this way: "The main purpose or objective is to prepare the young for future responsibilities and for success in life, by means of acquisition of the organized body of information and prepared forms of skill which comprehend the material of instruction" (p. 18). The focus of this study is on participant perceptions of their readiness for success in college and/or in the workplace relative to their experiences in a hands-on learning program at the Career and Technical Institute at Dutchess County BOCES. Participants viewed readiness in different ways by equating it with words such as "responsibility" (CO-8-3, 61), "study skills" (CO-7-1, 139), and "being on your own . . . I didn't have to rely on my parents anymore" (CO-6-1, p. 8). Thus, respondents viewed readiness as their ability to act independently of their parents, take responsibility for themselves, and utilize the study skills that they learned before going to college. Readiness for the work world was described by June as "like your personality toward others, like you can't have a very down personality, like positive outlook of people; you need to be positive of everything" (CO-8-3, 96-99). In other words, there are dispositions such as positivity that equip one for being in the workplace such as dealing with co-workers and dealing with the public. Participants appear to be better equipped to face whatever pathway they take as a result of their involvement in a

hands-on learning experience at CTI because "if students [in more traditional settings] are not initiating first-hand career exploration, they are likely pursuing careers with only a cursory understanding of what they entail" (Gaylor & Nicol, 2016, p. 4).

Table 11 includes the interview codes for each of the participants. Interviews were coded with the code assigned to each participant followed by the number of the interview (e.g., CA-4-1, CA-4-2, CA-4-3). Four of the participants attended college: Fran, Heidi, Isaac, and June. Three of the participants worked but did not attend college: Adam, Eileen, and Didi. Lastly, three of the participants worked and attended college at the same time. The first column lists the pseudonyms of the participants next to the codes also used to identify them but maintain their confidentiality. Moving from left to right, the third, sixth, and ninth columns list the interviews that were conducted with each participant in numerical order. For example, a participant such as Fran, also known as CO-4, was interviewed three times; so, the interviews were labeled CO-4-1, CO-4-2, and CO-4-3. The rest of the participants were coded in similar fashion. Becky, who was interviewed only once, has only one interview listed, CO-6-1. The third interview with Heidi, CO-3-3, includes an asterisk because she answered the questions from the third interview instrument via email. Similarly, CO-8-3 is demarcated with an asterisk because June answered interview three questions over the telephone. All other participant interviews were conducted in person. Participants were assigned codes to maintain confidentiality and pseudonyms so that they were identified as people and not just numbers.

Table 11

Participant Interviews by Category Type

College	Codes	Interviews	Career	Codes	Interviews	College and Career	Codes	Interviews
Fran	CO-4	CO-4-1 CO-4-2 CO-4-3	Adam	CA-4	CA-4-1 CA-4-2 CA-4-3	Becky	CO-6	CO-6-1
Heidi	CO-3	CO-3-1 CO-3-2 CO-3-3*	Didi	CA-5	CA-5-1 CA-5-2 CA-5-3	Carrie	CO-7	CO-7-1 CO-7-2 CO-7-3
Isaac	CO-5	CO-5-1 CO-5-2 CO-5-3	Eileen	CA-2	CA-2-1 CA-2-2	Gina	CO-1	CO-1-1 CO-1-2
June	CO-8	CO-8-1 CO-8-2 CO-8-3**						

*Note.**interview conducted by email; **interview conducted by phone

Introduction to the Findings

One major finding statement and four sub-finding statements emerged through the analysis of the data. An in-depth discussion of the analysis methodology is provided in chapter three. The major finding statement and four sub-finding statements emerged from a regimen of open coding, axial coding, code categorizing, and thematic identification. The final finding statements are identified in the following paragraphs.

The major finding statement that resulted from in-depth coding analysis of the transcript data is: Participants in a hands-on learning experience perceived themselves as being more ready for college and/or careers then if they had remained exclusively in a traditional high school setting. Interestingly, the recursive nature of the data analysis was mirrored by the recursive, developmental nature of the experiential learning encountered by participants. To illustrate,

Figure 10 includes four text boxes, each devoted to the themes that eventually led to the finding statements abbreviated with the key words, Exposure, College-Career Planning, Skills/Dispositions, and Learning. At the center of the graphic is the phenomenon of participants' Perceived Readiness from Hands-on Learning, because perceived college and career readiness is the central phenomenon being examined in this study. The quadrants around the phrase Perceived Readiness from Hands-on Learning signify the continuous, generative nature of experience and learning. Thus, there is no beginning and no end, rather a continual flow from exposure that leads to learning that leads to skills and dispositions necessary for success on the job or in college that becomes part of purposeful college and career planning. This flow could start at any one of the four sub-findings. For example, a young person's college or career planning efforts could lead to his/her seeking out of exposure to college and career experiences or he/she could seek out more knowledge – learning – about a particular career field or college major.

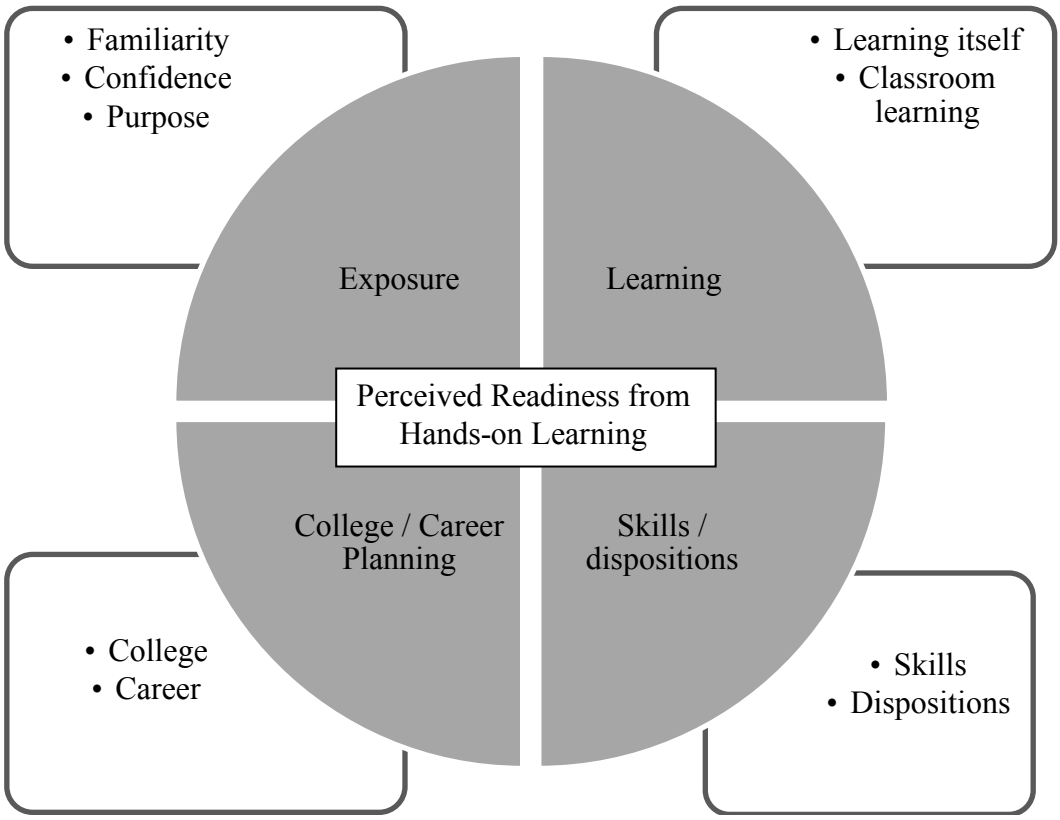

Figure 10. Finding statements illustration

The first sub-finding, represented by the word exposure is: Participants perceived an enhanced level of readiness as a result of the exposure they encountered that gave them a familiarity with their focus area that resulted in confidence and engendered a sense of purpose. This is represented by the word, "exposure," in the upper left inner text box. The text balloon that emanates from there in the upper left of the graphic then lists major codes or coding categories under which are listed instances from the transcript data that support the code categories.

Similarly, the finding in the bottom left of the graphic represents the second sub-finding statement identified by the words, "Career and College Planning," and reads: Participants perceived that their hands-on learning experience served as planning for their career field, confirmation of career choices and decisions, and led to confidence in career paths. Some

participants were attending college exclusively while others were already working in careers while still others were both working and attending college. The type of readiness attributes that participants identified and that the researcher coded were things such as "career planning" and "preparation" and career "decision" that were applicable to both categories of college and career. As a result, one's choice of career path might dictate one's choice of college major.

The third sub-finding statement is represented by third text box in lower right corner of the graphic, "Skills/Dispositions." The third sub-finding statement is: Participants perceived that they developed valuable work dispositions that were applicable to college and career experiences like social skills, time management, and an ability to make friends. Again, skills and dispositions had some crossover in the two worlds of college and career. For example, "social skills" became a code and encompassed a person's ability to make friends, collaborate, and interact with the public. Participants identified social skills as important at college in order to be successful in the classroom such as doing small group work. At the same time, social skills are also necessary at the workplace where interaction with the general population such as customers is inevitable.

Lastly, the fourth sub-finding is represented in the upper right side of the graphic with the word, "Learning." The fourth sub-finding statement is: Participants perceived that the non-traditional experiential nature of hands-on learning, coupled with supportive teachers, led to readiness skills such as useful study habits that could be applied to their new college and/or career settings. The concept of learning is divided in two because respondents talked about the practical side of classroom learning such as homework, tests, and studying but at the same time they talked about experiential learning and how it led to the learning that made them feel ready.

Findings

"So, I felt like going to CTI [gave me] an even more realistic outlook on the world, you know?" (Isaac, CO-5-2, 580-581).

Major Finding

This subsection will address the major finding statement and subsequent sections will focus on the four sub-finding statements in numerical order. The major finding statement is: Participants in a hands-on learning experience perceived themselves as being more ready for college and/or careers than if they had remained exclusively in a traditional high school setting. Within this major finding statement a significant theme emerged from the transcripts that is identified as "learning styles" and it is discussed in a subsection labeled accordingly. The process used for reducing the open codes to themes can be seen in Appendix L – Open Coding. Similarly, a comparative coding matrix is viewable in Appendix M.

Generally speaking, participants viewed hands-on learning favorably compared to traditional classrooms or book learning. For example, Eileen's pronouncement that "staying in the classroom isn't going to do anyone any good; actually going out and experiencing it just teaches you things you can't get in a book" (CA-2-1, 111-112) mirrored Isaac's perception that "people like me, I would prefer learning more hands-on like actually getting in there and doing it rather than reading it out of a book" (CO-5-3, 105-106). Hands-on learning refers to learning activities that require students to apply skills and knowledge directly either in the field such as in an internship or apprenticeship setting, or in the classroom practicing skills and knowledge tangibly such as a cosmetology student who might "go to the lab and use dummies to maybe do certain activities or certain tasks" (CO-7-2, 143-144). Participants were asked in the third interview, "If you could create the ideal high school experience that would lead to the greatest

college and/or career readiness, what would it look like?" (Appendix E) June responded, "well, I would definitely use hands-on learning, that's what I would use I think; it's the best" (CO-8-3, 34-35). Isaac spoke enviously about how one large high school he knew of had technology classes that his smaller home school did not and this was his ideal. "They had like woodshop and all of that; it's like I think that would be a good idea for a lot of schools to have where people who enjoy doing that type of thing" (CO-5-3, 88-90). He confirmed the researcher's follow-up question that the ideal school would "have classes that have a hands-on component to them" (CO-5-3, 91). Similarly, when asked in the second interview, "What courses or training do you feel were lacking from your high school experience or that you wished you had received?" Gina explained,

> I feel if there were more hands-on classes or like your guidance counselor worked with you more instead of classes that like you actually needed and that you were interested in, I feel like if I was in those classes it would have prepared me more, or if I didn't like it I would have known in high school, maybe this isn't my path. (CO-1-2, 124-128)

Several participants discussed how hands-on learning was a good match for their learning styles. The subsection that follows is focused on the theme of learning style.

Learning style

Participants generally acknowledged that learning directly from experience was preferable to them rather than the traditional classroom and that this was one benefit of the BOCES CTI experience. Some respondents also said that hands-on learning matched their learning style such as Becky saying, "I personally liked it because I'm more of a hands-on type of learner" (CO-6-1, p. 5). Eileen felt similarly and said "I was built to go experience it myself" (CA-2-2, 719-720). In Eileen's second interview, she added to this saying, "I think if you take

them and show them or let them experience it in some type of way, they'll grasp what's going on around them" (CA-2-2, 224-226) and then added, "I'd rather be out there experiencing it myself; I want to see it; I want to say oh I did this" (CA-2-2, 373-374). By and large, participants viewed themselves as hands-on learners, suggesting that a hands-on learning experience had appeal because it matched their learning style. "We did a lot of hands-on experiences which I liked because I'm more of a hands-on learner" (Adam, CA-4-1, 85-86). Adam further explained about his learning style and how his memory was activated more from doing an activity as opposed to writing notes:

> I don't know, I learn better with my hands and instead of writing it down on a piece of paper just because for some reason I learn like that, I have to actually do it with my hands and do it actually. (CA-4-1, 96-98)

And, Adam continued to describe his learning style this way:

> Yeah, usually when you write things down you got to kind of remember what's on a piece of paper, when you're working with your hands you're actually making a mental note of what you're doing and how you're doing it. (CA-4-1, 104-106)

In his third interview, Adam reiterated this idea when he said, "instead of reading it in a book, I would actually do it and that would actually be helpful for my learning" (CA-4-3, 19-20). Isaac also found that he had a proclivity for hands-on learning because of his learning style pointing out that it "depends on how you feel like you learn better. Because people like me I would prefer learning more hands-on" (CO-5-3, 104-105). Heidi, too, felt that "you get to engage more in the subject and many people learn a lot more efficiently doing hands-on projects than just sitting down and taking notes" (CO-3-3, p. 2). Finally, June also identified hands-on learning as a match to her learning style, echoing the general consensus amongst the study participants.

"More hands-on learning helps you better understand what you're learning" (CO-8-3, 13-14). And, June again put it this way:

> For me, because I am a hands-on learner, I think just being able to do it with your hands, being able to manipulate it yourself, it's like easier to learn than if you're trying to learn like by a book or through a teacher speaking; it's easier to learn with your hands; it's easier to learn it. (CO-8-3, 25-28)

Summary of the Major Finding Statement

The major finding statement emerged from participants' comments about how their hands-on learning experiences led them to perceive themselves as being more ready for what they faced after high school than if they had been in a purely traditional high school setting. Part of this was attributed by participants to be a result of a better match to their learning styles. What follows in the next section is an illustration of sub-finding statement 1 that is focused on the exposure that participants encountered in their hands-on learning experiences. The next section highlights themes that emerged within this sub-finding, namely experience, experiential learning, exposure itself, hands-on experience, learning what one wants to do, and real world. These themes collectively led participants to a high level of confidence in what they faced after high school because they had more familiarity with the subject matter in their chosen college majors or in the demands of their workplace.

Sub-finding 1

> "I think like my hands-on experience at CTI helped me prepare for adulthood in like the real world" (Isaac, CO-5-2, 578-579).

Participants perceived an enhanced level of readiness as a result of the exposure they encountered that gave them familiarity with their focus area that resulted in confidence and

engendered a sense of purpose. The code book ended up with a total number of 251 codes. To eliminate redundancy and better organize the codes, they were grouped together in code groups. From those groupings, a total number of code incidences was tabulated for each of the codes and the codes garnering the highest number of mentions became the themes that are focused on in this section. Exposure as a code category group had 21 total codes associated with it from the original 251 codes with the highest overall frequency density of 18.29. Frequency density was calculated by taking the sum of all of the code incidences in a particular code group and dividing that total by the number of individual codes in the code group. Thus, the 21 codes that comprised the exposure code group collectively had 384 total mentions from the transcribed interviews. The 384 mentions were then divided by 21 producing a frequency density of 18.29, the highest of all of the category groups. Single codes that garnered the highest frequencies within the exposure group were: "experience" (58), "experiential learning" (45), "exposure itself" (56), "hands-on experience" (57), "learning what one wants to do" (45) and "real world" (37). "Confidence" (35) was placed in the Traits code group which did not make the final theme list but confidence as a code could have just as well ended up in the Exposure code group. Thus, it will be discussed briefly at the end of this section. The process used for reducing the open codes to themes can be seen in Appendix L – Open Coding. Similarly, a comparative coding matrix is viewable in Appendix M.

What follows is a focus on the themes that developed in the coding process about sub-finding statement 1, experience, experiential learning, hands-on experience, exposure itself, learning what one wants to do, confidence, and real world.

Experience

Participants found that their hands-on learning experiences made them more familiar with their area of focus once they started college coursework or began working in the career that they were focused on at CTI. For example, June related this about her internship experience:

> [The internship] was a big role like for me in my experiences because it really showed how much of a role I had when I was in the classroom with the children and how much I had to do to help them and what expectations the teachers had with the children so I had to work around that. (CO-8-2, 404-407)

Similarly, Carrie found that her CTI experience in nursing, where she worked towards earning her LPN, made her first employment not "as stressful as it could have been" CO-7-2, 91-92) and she reported that "I kind of knew what I was doing when I went into my new job" (CO-7-2, 94).

Experiential learning

Eileen's comment, "I think if you take them and show them or let them experience it in some type of way, they'll grasp what's going on around them" (CA 2-2, 224-226) is emblematic of how participants reflected on the value of their hands-on learning experience. Didi, who is currently working in her career field of cosmetology, described what her CTI teacher would have students do on Fridays, a sort of simulation of a salon, that "felt more like I was working there than I was learning" (CA-5-1, 144). She also found that she encountered significant learning at her waitressing job where "you learn a lot more of that actually doing it than you do learning about it" (CA-5-1, 332). Interestingly, Didi equated the value of experiential learning to learning a second language where "you can go to school for six or eight years and learn another language, but until you actually go there, go to a place that actually speaks it and fully immerse yourself in it you're not really going to learn that language and you're not going to really speak that

language" (CA-5-1, 471-474). She concluded her understanding of how experiential learning leads to better retention in the third interview when she said, "you retain information better when you physically get involved in it" (CA-5-3, 10-11). Heidi pointed out that going over a test that had been taken had value, but that "it's nothing like experience" (CO-3-2, 180-181) and that as far as getting ready for college was concerned, that "CTI played the most in helping me…I think if I didn't go to CTI I would not have the most of it. I think they helped me a lot" (CO-3-2, 624-626). June pointed out that her CTI experience gave her a familiarity with the subject matter that boosted her confidence when she got to college because "I already knew some stuff; I knew a little bit about it already" (CO-8-1, 59-60).

Hands-on experience

When asked why hands-on experiences were useful, Adam explained, "Hands-on learning is useful because…it would help you get a better job because you would know the skills that your boss or the work would need" (CA-4-3, 8-10). Didi spoke about how her CTI coursework's hands-on approach mimicked what working in the field would be like, specifically in the field of cosmetology. "We actually had a job instead of learning for the job; it was more like this is what you're doing and do it, like actually get it done" (CA-5-1, 177-178). She suggested that the ideal high school experience would include hands-on learning so that students "can get a feel for [work]" (CO-5-3, 96-97). In her third interview, Didi indicated that "I think that the hands-on learning itself gives you a lot more feeling of purpose for your learning" (CA-5-3, 9-10). In terms of readiness for college, Fran found that hands-on experiences "[help] you more be ready for college because you already know what is needed" (CO-4-3, 113). For Isaac, "my hands-on experience at CTI helped me prepare for adulthood…getting an even more realistic outlook on the world" (CO-5-2, 578-581).

Exposure itself

Participants in the study benefitted from the exposure they encountered during the course of their hands-on learning experience at BOCES CTI and in their early employment experiences. Exposure helped them to learn about whether their career interest was truly something that they wanted to pursue long-term. In her second interview, Eileen stated,

> Taking it out of a book, anybody can do that, but taking a student and letting them experience it, at least putting them in an environment where they know what's going on, it will give us different shots of what we're going to see outside of high school when we graduate college or even if you don't go to college. (CA-2-2, 226-230)

Furthermore, Eileen felt that exposure can lead one to new experiences and that "getting out of your comfort zone can take you to new places that you've never even seen before and it can be the greatest thing in your life" (CA-2-2, 300-302). Didi told a story about how, as a five-year-old, she had accidently hit a setting on a video game that caused it to be in Spanish. She continued, "I actually learned some Spanish – it's like for five-year-olds – and I was in the wrong language, so when I actually took Spanish in school, I loved it and wanted to keep learning it through high school" (CA-5-1, 363-365). Thus, a simple exposure to language learning gave Didi experience and confidence to tackle a language once she was in school. In terms of career exposure, June encountered exposure to children with disabilities in a family member with developmental disabilities who she enjoyed watching and to whom she enjoyed trying to teach things. Such pre-exposure sparked in her a potential career interest that led her to the BOCES program in high school.

> So from there I thought about maybe I should go into the field…so when was in high school, that's when I decided to go to like the CTI thing and really see what they had and

> when I saw that they had early childhood that was something that I was like hooked on right away. (CO-8-1, 175-178)

In her second interview, June revealed that during her CTI experience she had an opportunity to intern in a special education setting and she credits this new experience with helping her, in Eileen's words, "get out of [my] comfort zone" (CA-2-2, 299). "I wanted to try a new experience and when I tried the new experience it really told me what I wanted to do in life" (CO-8-2, 344-345). Fran found that familiarity created through exposure during high school "helps you be more ready for college because you already know what is needed" (CO-4-3, 113). Even though Isaac studied auto body at BOCES, he switched to communications when he got to college and pinpointed a pre-exposure experience back to high school that "kind of got my interest a little bit about the communication field" (CO-5-2, 15-16). He related a similar exposure experience during his CTI years where a company came and demonstrated windshield replacement and talked to students about the benefits of working for their company and this caused him to start "thinking this could be a good career for me" (CO-5-2, 258-259). Similarly, Becky found that her exposure experience to the cosmetology workplace "gave me just the idea what it was going to feel like to be in a salon and like in the workforce right away" (CO-6-1, p. 12). Carrie found that her transition to working in the nursing field was made easier because of her exposure to the work during her CTI experience. She said, "I already had a little bit of experience going into the nursing home so I kind of already knew what it was going to be like so it wasn't as stressful or as difficult as it could have been" (CO-7-2, 90-92). Carrie had also had pre-exposure to the field of nursing by accompanying her dad to his workplace and hearing him talk about his work. "My dad was a nurse anesthetist so I hear things from him" (CO-7-1, 223). Gina credited the guest speakers that came to CTI with the career path she followed. "So I'm

happy that they brought people in. If they didn't, I probably have no idea what I'd be doing with my life…It made me think, 'all right; well, there is a future in here'" (CO-1-1, p. 16).

Learning what one wants to do

Students benefitted from exposure experiences in their areas of interest because the experiences helped them learn and confirm what they wanted to do. Experiences in an area of interest often served as confirmation of career choices. "That was how I found out that I liked that" (Adam, CA-4-2, 412); "it's kind of helpful to like know what you want to do in life" (Adam, CA-4-2, 432-433). June found direction in her hands-on internship experience because "it showed like exactly where I want to be" (362-363). Similarly, Fran found that "BOCES actually teaches you a lot and it helps you figure out what you want to do in your path" (CO-4-2, 95-96). Carrie, also, found that "CTI helped me, well allowed me to know what I wanted to be when I went to college, it allowed me to get into the medical field" (CO-7-2, 291-292) and at the same time "seeing certain things allowed me to know what I dislike and like" (CO-7-2, 306-307). Compared to other students who went through the traditional high school program, Gina reported that "when I graduated high school, I knew what I wanted to do, while most of my friends had no idea what they were going to do" (CO-1-1, p. 10). In interview two, Gina expounded on learning what she wanted to do: "BOCES . . . actually brought us in a nursing home and actually got to do like hand-on things and got to see if we actually like it or didn't" (CO-1-2, 189-191). Becky found that her experiences at BOCES confirmed what she was good at and that she needed additional training. "I was a little scared…but it kind of just turned out I was good at what I was doing" (CO-6-1, p. 6). Again, Becky said, "I kind of just gave it a go and ended up really liking it" (CO-6-1, p. 9). And, finally, she said, "It showed me that I really did need to go to college if I wanted to do something else" (CO-6-1, p. 12). Overall, exposure

activities helped students "see like how you would live your life or like what you would do after high school" (Carrie, CO-7-1, 311-312).

Confidence

Having experience in a particular area of focus was something that led to confidence, a code that was referenced 35 times under the skills and traits code group. For instance, when seeking employment, Didi stated,

> I found that going in and being confident and saying, "Hey, I can do this, are you hiring?" You kind of want a little bit of that confidence to walk in somewhere and you want to be able to go in and say, "I'm licensed in this and I have experience in this." (CA-5-3, 494-497)

Exposure to the workplace environment gave participants confidence because they felt ready to handle the demands of work such as Heidi who pointed out that "In CTI most of the people who are working in a salon now were working in like a salon as a receptionist during CTI, so they already knew what it was going to feel like, so I think they were ready" (CO-3-2, 630-632). Job familiarity was also indicated by June who said, "So, it really showed what it was going to be like for me working throughout life" (CO-8-2, 408).

At CTI, students were assigned to create a portfolio that showcased their experiences, an invaluable tool when applying for employment because "you have proof what you did and it shows you actually have experience" (June, CO-8-2, 16-17). Job-seeking confidence is another readiness factor that CTI gives students, something June emphasized.

> CTI did so much for me and really put a push onto my career. It made me really happy with where I am now. I'm in this major; I'm trying to get a job in this major and

> hopefully it's going to be successful and I can really apply for a lot of different places because I have the experience. (CO-8-2, 307-311)

The confidence that participants felt emanated from their exposure to what work or what college will look and feel like, what Gina termed "getting my feet wet:" "I'm happy that I went to BOCES because I basically got my feet wet; like I knew what I wanted to do and I knew how to get there" (CO-1-2, 178-180). This sentiment is similar to how other participants responded when they related that they developed confidence as a result of getting a feel for the work. Didi, for example, related that a hands-on learning experience helped her to learn what she wanted to do:

> You just feel like you have something that you're good at . . .; you stick with it because you're getting better at it . . ., because you're learning . . .; it just gives you something to really focus on . . .; something kind of materializes and you want a career. (CA-5-3, 104-110)

Important exposure activities were given to BOCES students and in some cases, like Gina, this led to an affirmation of her career choice and confidence that this was something she had an interest in doing:

> [BOCES] actually brought in a nursing home and actually got to do like hands-on things and got to see if we actually liked it or if we didn't . . .. I was able to get my feet wet, like I saw all the jobs that were done in a nursing home, I was actually able to take care of them; I liked it a lot. (CO-1-2, 190-195)

Heidi found that exposure to the workplace gave her a feel for what the workplace environment would be like: "I think being in a salon like a real salon helped you get like the, I don't know, helped you get used to the atmosphere" (CO-3-1, 272-273). Participants made similar

observations about exposure to college life. Again, Heidi talked about studying for two years at the local community college but then venturing into dorm life at a nearby four-year college "so I get a chance to know what it feels like" (CO-3-1, 470). By contrast, Fran jumped right into a four-year college and within two weeks had to pull out because of homesickness. She realized that "it was more homesickness of why I left, so if they could have had sleepovers then probably that would have helped; they probably would never do that" (CO-4-2, 517-518). Similarly, June found that her exposure to her major field before college led to greater confidence and success once she got to college: "Since that's what I wanted to do and I knew that was going to be part of what I learned in college, it helped a lot because I already knew a little bit about it already, so it helped me understand it more and make me successful in what I had to do" (CO-8-1, 57-61).

Real world

Participants found appeal in the hands-on aspect of CTI because it replicated what some termed the "real world" such as Eileen who said "going to CTI helps you actually reach to what you want to do, like shows you what's going to happen in the real world" (CA-2-1, 102-103) adding that "CTI taught me what I needed to learn before going out into the world" (CA-2-1, 100). Adam stated that traditional "school doesn't really help you for the real world" (CA-4-2, 155) and Didi added that once she started working she noticed that what she learned for her license were not applicable to the workplace, that "there were a lot of things that you only do that for the board" (CA-5-1, 42). Eileen echoed that sentiment pointing out that "certain things you learn [do not] really happen in the real world" (CA-2-2, 464-465) and that "CTI took me through the trials and errors of how it's going to be" (CA-2-2, 596-597). Heidi found the notion of facing the real world made her "excited" because it meant she was "growing up" and found that her newly formed social acumen was indicative of growing up and being in the real world (CO-3-1,

101 & 108-109). Isaac similarly found that moving on to the real world was "eye opening" and that it was "kind of like moving into adulthood . . .. It's like knowing pretty much playtime is over" (CO-5-2, 369-373). Isaac acknowledged that his "CTI experience helped [him] prepare for adulthood in like the real world" and gave him "an even more realistic outlook on the world" (CO-5-2, 578-581). He put it in even clearer terms in his third interview when he said, "it can help you realize what getting a real job is like…and prepares you for adulthood" (CO-5-3, 8-10). Finally, Carrie summed it up nicely that "CTI helped me a lot [and] taught me things I can take…into the real world" (CO-7-2, 255-256).

Sub-finding 1 Summary

Participants in the study perceived that they were better prepared for life after high school because of the experiential learning they enjoyed than if they had been enrolled full time in a traditional high school program. Thus, participants perceived that they benefitted from being in a hands-on program because the experiential nature of the program gave them exposure itself to facets of work life and of college life that they actually encountered in their first year out of high school. In many cases, participants learned what they wanted to do and confirmed their chosen paths as a result of their hands-on experience. Exposure experiences lent participants a certain confidence once they began college or work life that they otherwise may not have enjoyed as a result of the familiarity they developed with either the subject matter or the workplace dispositions (or both) that they encountered in their new venues. What's more, their experiences gave them a sense of purpose and oftentimes led to an excitement about their new entry into what was referred to as the real world. Overall, their hands-on experiences helped CTI graduates feel ready for what they faced in their first year of post-high school life, either in college, employed in the workplace, or in some cases both. The next section focuses on sub-finding 2

which emerged from the transcripts and that is used to discuss how participants' hands-on learning experiences at CTI served as a vehicle for college and career planning and led to a perception of confidence about their chosen career paths. It also describes themes within that emerged from open coding procedures and include: Career field, career planning, college, license, and preparation.

Sub-finding 2

> "BOCES really told me what I wanted to do . . ., really put a big emphasis on actually what I was doing and how I wanted to connect that to my future" (June, CO-8-2, 170-172).

Participants perceived that their hands-on learning experience facilitated college and career planning, confirmed college and career choices and decisions, and led to confidence in college and career paths. College and Career Planning as a code group comprised 21 codes with an average frequency density of 15.36, the second highest overall. This was derived by dividing the total number of code mentions (338) by the number of codes in the category group, college planning/career planning (21), for a frequency density of 15.36. Codes that collected the most code references were "career field" (20), "career planning" (23), "college" (45), "decision" (31), "license" (29), and "preparation" (40). By and large, participants viewed their experience at BOCES favorably, especially as it relates to their preparation for whatever reality they faced after high school. Some respondents were quite direct about these feelings such as June who reported that "BOCES really told me what I wanted to do. BOCES really put a big emphasis on actually what I was doing and how I wanted to connect that to my future" (CO-8-2, 170-171). What follows is a focus on the major themes about college and career planning, career field, career planning, that developed from coding interview transcripts. The process used for reducing

the open codes to themes can be seen in Appendix L – Open Coding. Similarly, a comparative coding matrix is viewable in Appendix M.

Career field

Adam found that "[BOCES] kind of helped me decide if that's the right career to go in" (CA-4-2, 262). Participants used words like "path" and "future" to indicate that career planning was a significant part of the BOCES experience such as Fran who pointed out that "BOCES actually teaches you a lot and it helps you figure out what you want to do in your path" (CO-4-2, 95-96). The same principle applied to college major choices with some participants who credited BOCES by saying things like Carrie who said, "CTI helped me, well allowed me to know what I wanted to be when I went to college" (CO-7-2, 291-292) or again, Fran: "I would say they more or less helped you figure out what you wanted to do" (CO-4-2, 315-316). June expressed a similar sentiment finding that her internship experience and her field work "really helped me learn more about my career" (CO-8-1, 41-42). In her second interview, June credited BOCES with preparing her saying "CTI did so much for me and really put a push onto my career" (CO-8-2, 307-308).

Career planning

To some extent, students in the BOCES program engaged in some career planning work like "resumes" and "we did a few job applications" (Adam, CA-4-1, 202) but this was minimal. Fran reported that she had participated in career planning at her home high school including going to college fairs and working with her guidance counselor but mostly in her junior and senior year. By contrast, Heidi said, "I didn't really think about the future in high school until I got to BOCES like senior year" (CO-3-1, 221-222). In the third interview with June, she explained that she had a good idea of what she wanted to do after high school, while most of her

peers were not sure. Her advice: "They have to take some time to think about it to actually know what they want" (CO-8-3, 78-79). For some participants, CTI was the medium for this career planning such as Carrie who said that CTI "helped me plan it out" (CO-7-2, 287). "CTI helped me, well allowed me, to know what I wanted to be when I went to college; it allowed me to get into the medical field" (CO-7-2, 291-292). When asked to construct the ideal high school experience, Carrie suggested in her third interview that "you should have everyone pick a career or something and like allow them to build like basic knowledge about it; take courses that would help them become more in touch with their career" (CO-7-3, 87-89). Gina went a step further by suggesting that "you should take a class that's going to help you for your career" (CO-1-1, p. 13). Becky, also, suggested that students should take an actual course designed for career planning to "give you a little more like idea of what you're going to be doing once you get out of high school" (CO-6-1, p. 9).

College

College and career planning are obviously closely related and most participants talked about additional training after high school. Didi talked about how her mother insisted that she try going to college but her heart was not in it and when an illness forced her to take a semester off that was all the excuse she needed to not return. She made a deal with her mother that if she finished earning her licensing credential in cosmetology that her mother would relent on the college idea. Participants like Gina, who earned their CNA license, could easily find employment but needed to return to college to become a licensed practical nurse (LPN) or a registered nurse (RN). Most of the respondents that the researcher interviewed were attending the local Dutchess Community College. One of those young people, Fran, had attempted to go

to a four-year school, but came home after two weeks because she was homesick or, in other words, she was not ready.

License

For some respondents, the BOCES experience led to a very practical attainment of a license that had direct implications on their ability to find work in their chosen fields. In fact, participants found that the prospect of earning a licensing credential was something that motivated them to participate in the BOCES experience at CTI. Two BOCES programs lead to licensing: cosmetology and nursing. Gina credits BOCES with giving her the opportunity to earn a CNA license:

> I feel like in high school, I wouldn't have really gone to nursing homes. I wouldn't have really done what I needed to do, versus at BOCES, you have to. That's the reason you're there. You want to do it. If I had never heard of BOCES, I probably wouldn't be a CNA. (CO-1-1, p. 22)

Students who attained a cosmetology license had similar feelings and identified their licensure as something that gave them confidence in pursuing work in their field, such as Didi who said, "you kind of want a little bit of that confidence to walk in somewhere and you want to be able to go in and say I'm licensed in this and I have experience in this" (CA-5-3, 495-497). Heidi, who unlike Didi, was attending college to pursue a degree before working and had the practical portion of the licensing test still remaining, was confident that once she got her license that "I'm probably going to start working in a salon since I have my license" (CO-3-1, 138-139). BOCES played an important part in helping both young people who aimed to go to college to make decisions about their major focus and young people who endeavored to enter directly into the workforce after high school. The opportunity for them to earn a license provided them with the

capacity to be employed either exclusive of college or in conjunction with college, something that participants viewed as advantageous.

Preparation

Preparation as a code received the second highest number of references, 40, amongst the codes attached to this sub-finding. Considering that the research in this study is focused on readiness, an emphasis on preparation makes sense. Eileen clearly pointed to CTI and its preparatory function when she said that "CTI taught me what I needed to learn before going out into the world" (CA-2-1, 100). She continued by contrasting CTI with her traditional high school experience.

> High school just like I was sitting behind a desk and taking notes, which is what every kid does. But going to CTI helps you actually reach to what you want to do, like shows you what's going to happen in the real world, doesn't cover it up and it shows you how it is and what you have to do to succeed. (CA-2-1, 101-104)

When asked to describe what college and career readiness as a phenomenon is, Didi explained that "it's sort of how well they prepared you to go into a job or more schooling" (CA-5-1, 30). Adam compared his traditional high school experience with his BOCES experience and he stated, "I know CTI really helped me most of anything" (CA-4-1, 170-171). Fran also compared the two and found that "BOCES, yes it teaches you how to go to college but regular high school doesn't" (CO-4-1, p. 3). June encountered an internship experience and actually found that her "CTI experience gave me a push to know that like what an internship was going to be like and how that will help my career" (CO-8-1, 238-240). Earlier in the same interview, June pointed out that she "did feel like the CTI experience did really help me because [it] was something that I wanted to do in the future . . . It really helped me learn more about my career and what I should

[do] in college" (CO-8-1, 39-43). Carrie found that she was doing things at CTI that were atypical of the usual high school experience. "I got into the LPN (Licensed Practical Nurse) class, the adult class, so basically you learned a lot of adult things and not what a typical high-schooler could probably learn; so, I was kind of prepared" (CO-7-1, 56-58).

Sub-finding 2 Summary

Participants overall acknowledged that their enrollment in BOCES, CTI was advantageous to them relative to their focuses in career planning, career field and college planning. BOCES provided students with a psychological emphasis that was decidedly future-focused and this helped students develop a sense of preparedness for what was next. Inevitably, the conversations had in interviews led to a comparison of the traditional high school experience and that of the more practical, hands-on focus at CTI. For example, some participants exited their CTI experience with a license that provided them with tangible evidence that they had been prepared to do the work in either cosmetology or nursing. As a result, participants developed a certain confidence in their preparation for their chosen work field or concurrently the confidence to extend their pursuit of a chosen field by studying it more in college where generally they felt an advantage over students who are entering their studies without preparatory experiences BOCES offers.

What follows is an overview of participant perceptions about how their hands-on learning experiences at CTI helped them develop preparatory skills such as time management and balance, work dispositions, and social skills, all of which led them to feel more ready for college, careers, or both.

Sub-finding 3

> "It kind of opened me up to see how the world is…because I got to go to a new school instead of going to high school every single day with the same people. So that kind of helped me" (Heidi, CO-3-2, 404-406).

Participants perceived that they developed valuable work dispositions that were applicable to college and career experiences like social skills, time management, and an ability to make friends. Overall, there was a wide range of skills, traits, or dispositions identified by participants as being important relative to their readiness for college or careers. There were 43 codes in this code group of Skills/Dispositions and 491 total references giving this category an 11.42 frequency density. Most codes had single digit frequencies but many codes could be combined into one because they were fairly synonymous. For instance, "collaboration" as a skill is very similar to "group work" or "teamwork;" and "essay writing" was close to "writing skills." Several codes garnered double digit frequencies such as "balance" (21), "dealing with others" (23), "friendship" (32), "relationship" (28), "skills" (27), "social skills" (67), "time management" (42), and "work disposition" (23). The process used for reducing the open codes to themes can be seen in Appendix L – Open Coding. Similarly, a comparative coding matrix is viewable in Appendix M.

What follows will be a review of participant perceptions in relative to the themes of time management and balance, work dispositions, and social skills.

Time management and balance

As is often the case for first year college students, respondents in this study were met with the challenge of how to find balance with coursework, jobs, and personal time. Isaac found that his CTI experience assisted in this regard:

> Well I think like my hands on experience at CTI helped me prepare for adulthood in like the real world. It helped me realize you're going to have to juggle a lot of things, especially if you're planning on going to college. So I felt like going to CTI and getting an even more realistic outlook on the world. (CO-5-2, 578-581)

Other participants referred to this juggling act as "balance" such as June who reported that she was managing to find the elusive balance between school and work. "I work right now and I do school and it just balances out really well" (CO-8-1, 94-95). Earlier in the same interview she had identified time management as a challenge: "I mean it's a lot of time management and you have to balance your schedule because you have to get the work done [in college]" (CO-8-1, 153-154). Carrie credited a particular class at BOCES with teaching her about time management: "It allowed me to manage my time more wisely, to know what I wanted to do after I finished that course, and where I wanted to go and how long it would take and all that; it helped to plan it out" (CO-7-2, 285-287). Participants found that when they got to college they needed to manage their time because the college schedule was different. Heidi, in particular, found that "making your own schedule and deciding when to have your breaks is a really good thing…and maybe I would want to study during my break one class so I could do good on a test or something" (CO-3-2, 95-98). Didi found that high school gave her a "sense of time" making her used "to being on the clock" (CA-5-2, 256-257 & 252) but generally participants in their first year of college encountered discretionary time for the first time and had to figure out how to make good use of their time. The CTI schedule did not necessarily prepare students for this reality. For example, Heidi wrestled with the distraction of friends where "sometimes, like if I wanted to study in the library, my friends would come and see me and they'd start talking to me and I'm just like trying to like study and he keeps talking and then I don't study" (CO-3-2, 120-

122). June echoed this initial struggle because she found "it was hard to figure out ways to get myself situated between school and work . . . I had to figure out time management really well and it was a struggle" (CO-8-2, 35-38). Fran's experience has been similar where "working full time and going to school, that was a challenge for me at first" (CO-4-2, 133) because "managing work, school, and just regular life, it's kind of complicated" (CO-4-2, 150-151). She also learned that in college "you can't slack off [and] wait until the last minute to do things" (CO-4-2, 574). Isaac related that being on time to classes was important and that he was surprised that "even if you're five minutes late, that's a big strike" (CO-5-1, p. 10). In addition, when asked what he found challenging when he first started college, Isaac said, "probably just like getting everything done on time" (CO-5-2, 112). Carrie decisively credited CTI with helping her learn the skill of time management and more when she said, "It allowed me to manage my time wisely, to know what I wanted to do after I finished [CTI] and where I wanted to go and how long it would take . . .. It helped me plan it out" (CO-7-2, 285-287). Becky found the new environment in college "was really hard at first, because I was like, 'Where do I start?' It's overwhelming" (CO-6-1, p. 12). When asked how her high school might improve how it prepares students for college, Becky suggested that the high school program should help students in "planning your time . . . especially when you're out of high school because it's not the same routine every day. . .. It's a lot different in college" (CO-6-1, p. 12). She added that having a job while in high school contributed to her preparation. "It helped me because like with time management . . . So, it did help me plan my time a little better like with homework and projects" (CO-6-1, p. 13).

Work dispositions

Work dispositions are another aspect of readiness that participants learned through their BOCES experiences. Eileen, for example, who is currently in the workforce, found that "having the same attitude and persistence that you have in that subject or job, or whatever, it's you can still show up with anything you do" (CA-2-2, 323-324). Customer service is an important disposition that Eileen and other participants identified citing the importance of "always being courteous to the customer," something she learned on the job. Similarly, Didi explained that at her workplace "I'll stand up when they come in; I'll greet them" (CA-5-2, 137). And, dressing professionally was something that Didi also identified as important when she repeated what her teachers at BOCES instilled in her: "Again our instructor was very professional and she taught us very professionally so we learned you want to dress for success" (CA-5-2, 756-757). June reflected on a first job where she received exposure to working stating "it was a good experience for me; it was my first job; I learned how to work; it was kind of a little push for me" (CO-8-1, 265-266). More specifically, Eileen said she has found satisfaction in learning on the job things like, "learning how to move faster, multitasking, learning how to get along . . . Even if you have your ups and downs with [coworkers] you still have to come to work every day" (CA-2-2, 424-427). Similarly, when asked about what work skills or dispositions he learned at CTI, Adam said, "just working in a kitchen, workplace skills, working with others" (CA-4-2, 480). When asked to elaborate on what he meant by working with others, he said, "Basically the obvious things; be nice. I mean everybody should know that, but basically some of the things I learned was like working with a lot of people around you like physically working around you" (CA-4-2, 482-484). In terms of work dispositions, Carrie learned how to interact with geriatric patients in her employment in a nursing home where "you have to interact with many patients and families

and you have to learn to talk to them in a certain way or certain manner" (CO-7-2, 28-29). Heidi pointed out that she had to learn to deal with customers who were not always kind saying, "I don't get like mean back to them; I just stay smart" (CO-3-1, 347-348). She continued, "If I took my anger out on them I would probably get fired . . .. Maybe they had a bad day or something; I don't want to make it worse" (CO-3-1, 353-355). For Gina, she learned about professionalism, another term for work dispositions.

> Probably the best thing that BOCES taught me was responsibility. You always had to wear a uniform. You always had to be proper. You couldn't act like you [would] in your normal high school. You're learning something that not a lot of people can; so it's definitely something that you have to be responsible about. (CO-1-1, p. 11)

Overall, participants learned about work dispositions in their CTI experience, both in the classroom and in the workplace. They all developed to varying degrees a work ethic, what Isaac termed "doing quality work; not doing a poor job" (CO-5-3, 38). Carrie summarized it nicely saying, "I've always had the mindset of working hard. So, that's exactly what I'm doing in my job" (CO-7-2, 437-438).

Social skills

One code that had the highest frequency of all in this code group was that of "social skills" (67), as participants discussed their ability to make new friends in college or the workplace. Heidi credited BOCES with giving her practice in this area: "I got used to making friends in BOCES so it helped me here" (CO-3-2, 135-136). Fran found that being in the work world fostered her own social interaction saying, "I had more social skills. Like I got more social skills as I was working so I could talk to people better" (CO-4-1, p. 3). Again, Heidi acknowledged "I learned to like be more social; I made a lot more friends. I feel like I'm

growing up, like I've grown up a lot" (CO-3-1, 108-109). Didi talked about how her work as a hairdresser required that she build relationships with her clients by remembering little things about them that were fodder for conversations that if remembered the next time would make them feel good. "You want to pick up on little things like if they say they're going on vacation, next time you see them if they went on vacation you ask them how that went" (CA-5-2, 27-28). Didi spoke extensively about the importance of customer relations and suggested that her social experiences in her BOCES coursework helped her "get a lot more confident" (CA-5-2, 701) because she pointed out that, "I was not a social butterfly" (CA-5-2, 653). Finding that confidence at her workplace was something she viewed as important relative to her customer relationships because she pointed out that "if I can remember one or two things about each person next time they come in . . . that can make their day" (42-45). Both Didi and Fran found that they also learned about the value of workplace social interaction, also known as customer relations, on the job itself. Fran worked at a large technology retailer during her senior year of high school and this is where she gained experience interacting with customers. "I got more social skills as I was working so I could talk to people better than I could in high school. I was to myself in high school . . .. Now I can talk to anybody" (CO-4-1, p. 3). The social experiences at BOCES helped Heidi break out of her shell and be more social in general. "I had to be like social with everybody, so like by the end of the year, I made like a lot of friends, and I learned how to make friends and stuff; so, that helped me" (CO-3-1, 117-119). In a way, going to BOCES simulated going to college classes for Heidi because "it was like different people from different school districts . . . so maybe that helped me open up a little when I came to college" (CO-3-2, 132-134). At the same time, Heidi also found that "working helped me learn a lot…I became a lot more social because I had to go up to customers and ask them if they needed help

with anything" (CO-3-1, 332-334). Her experience mirrored that of June who found that she learned to be more sociable as a result of her high school employment. "They had me do…sales with people, a lot of communication . . .. I used to be kind of shy and it's like I opened up more when I went to do the job because I got to speak to the people" (CO-8-1, 280-282). Later, she explained that "the employment I think prepared me because . . . I was a very shy person at the beginning, but as I got to work, I worked . . . on my social anxiety . . .. I'm just more sociable . . .. It's just a thing that naturally comes out now that never used to be like that" (CO-8-1, 289-293).

Sub-finding 3 Summary

Participants developed a certain dispositional confidence from their experiential learning programs at BOCES and found that it helped them when they were beginning their college experience or a new job. For example, Didi asserted that her licensure boosted her confidence in seeking a job because she said "you want to be able to go in and say I'm licensed in this and I have experience in this" (CA-5-3, 497-498). Similarly, June found that she started college coursework with confidence because "I already knew some stuff to like push me on a good start. So, some of the stuff I first learned when I got here I knew a little bit about it already, so it helped me understand it more and make me successful in what I had to do" (CO-8-1, 60-61). Fran was more overt about her college readiness: "It like helps you more be ready for college because you already know what is needed" (CO-4-3, 112-113). Carrie found the same to be true in the workplace when she said, "so I kind of knew what I was doing when I went into my new job" (CO-7-2, 94). Thus, participants perceived that they were able to handle the time management demands they encountered in their new workplace or college venue and they were better equipped to find balance as a result of their CTI experiences and first jobs. At the same

time, they developed important work dispositions such as social skills and dealing professionally with co-workers and customers in the workplace. Generally, they benefitted from developing social skills in the CTI environment that were also transferable to college both in and out of the classroom.

The next section will address participant perceptions about sub-finding 4 that relates to readiness skills that developed as a result of their experiential learning experiences such as study habits. Participants also frequently discussed how the development of study skills was facilitated by increased engagement from having choice in the areas they pursued, supportive teachers and other adult support, and lead to increased levels of learning itself.

Sub-finding 4

> "[Hands-on learning] helps you be more ready for college because you already know what is needed" (Fran, CO-4-3, 112-113).

Participants perceived that the non-traditional experiential nature of hands-on learning, coupled with supportive teachers, led to readiness skills such as useful study habits that could be applied to their new college and/or career settings. Learning as a code group was formed by combining two similar code groups, "learning" with a total of 13 codes and an average overall frequency of 11.77 with "classroom learning" with a total of 23 codes and an average overall frequency of 12.65. These two code groups were combined because of their obvious similarities. The individual codes in the coding group "classroom learning/academics" were referred to 291 times and when divided by the 23 individual codes in the code group a 12.65 frequency density was derived. Similarly, in the code group learning, all codes were referred to 153 times and when divided by the 13 individual codes a density of 11.77 was derived. The codes referred to most frequently were "choice" (29), "classroom learning" (28), "grades" (31), "homework" (29),

"studying" (35), "teachers" (38), and "tests" (24). The individual codes in the coding group "learning" that were referred to the most were "knowledge" (20), and "learning itself" (57). The process used for reducing the open codes to themes can be seen in Appendix L – Open Coding. Similarly, a comparative coding matrix is viewable in Appendix M. What follows is a focus on participant perceptions about their learning readiness for college and careers and the major themes of choice, teachers, adult support, study skills, and learning itself that emerged from open coding of interview transcripts.

Choice

Participants were generally praiseworthy about their BOCES CTI experience because the hands-on component of the program appealed to their learning styles and it was something that they had chosen to do. Some participants, exemplified by Eileen, simply appreciated getting a change of scenery because "It felt great not being in the classroom and going to do something else" (CA-2-1, 154). BOCES students split their days in half during junior and senior years and spent one half of the day at their home schools and the second half of the day at the CTI campus. This gave them a natural break each day in between sessions. Eileen pointed out the distinction between hands-on learning and classroom learning: "I personally don't like learning in a classroom; I'd rather be out there experiencing it myself . . .. I want to experience it, I want to see it, I want to say, 'Oh, I did this'" (CA-2-2, 373-377). Eileen talked about the conflict she felt about the expectation that she attend a four year college and her desire for hands-on learning. Either way, she said "The learning is still going to be the same for me; I'd rather be hands-on than in a classroom. That's my choice" (CA-2-2, 403-404). Didi explained that ideally students should be able to choose, that "there should be an option of these two different ways of learning" (CA-5-3, 395-396). She continued saying that, "It can be as simple as giving them something

that they're interested in, making it related to what they're doing" (CA-5-3, 400-401). Heidi said that she sought out BOCES because it offered more choices than her home high school where "there weren't a lot of choices at all" (CO-3-1, 206). When asked if students would feel more connected to their learning if they had more choices, Heidi asserted that "they would definitely like find what they're good at and then maybe plan their future" (CO-3-1, 210-211). She further explained that if she could talk to someone of influence at her home school, she would suggest that students be given "more programs like . . . MLA format . . . or a class about public speaking . . . so maybe something like that would help them build more confidence" (CO-3-1, 183-187). Overall, she found that "seeing a lot of options kind of opened my view on what else there is" (CO-3-1, 455). June found that having a choice of populations to work with in her CTI internship was helpful to her future planning because it gave her an opportunity to try working with special needs children. "I wanted to try a new experience and when I tried the new experience it really told me what I wanted to do in life" (CO-8-2, 344-345). Fran found that "it is very stressful to choose what you want to do" for a career and "when you're wrestling with that decision…that's stressful and difficult and then once you've made the decision and it's done and you're pursuing it and then you're done;" it relieved the stress (CO-4-2, 306-309). She identified CTI as helping with that choice-making process because "it just finalized what I wanted to do" (CO-4-2, 313). Isaac found the idea of being able to chart his own course of study was appealing as a senior in high school because it was counter to the proscriptive scheduling that is common there. "What I was looking forward to the most especially towards the end of high school was just like being able to pick what classes I wanted" (CO-5-2, 549-550). Ultimately, Isaac realized that he would still have to take many required courses, but he was still

happy with the ability to also choose the elective courses he could take from a much larger selection.

Teachers

One obvious aspect of learning that participants talked about was the support of teachers in the readiness quest. Eileen appreciated one of her teacher's no nonsense approach. "She grabbed me by the reins . . .. It's like 'we're doing this and if you have a problem with it we'll figure it out . . .; if you mess up, you'll do it until you get it right" (CA-2-2, 572-577). Similarly, Isaac credits a teacher with realizing that "not every one of your bosses is going to be the nicest person" because "if you'd get something wrong, he'd let you know you did it wrong. So, that kind of opened my eyes that not everyone is going to sugar coat everything for you" (CO-5-2, 36-40). One of his teachers also asked him to think about the future. "He helped us out . . .. He would always tell us think about what you want to do in ten years" (CO-5-2, 431). For Fran, her BOCES teacher simply helped her overcome some struggles she was having and this helped her survive her senior year. "My teacher was awesome so she helped me like get through my struggles through my senior year that like my guidance teacher in my home school wouldn't help me with" (CO-4-2, 176-178). She also felt that the teachers at BOCES had a different approach to how they interacted with students saying that "The teachers never talked down to me, they were always there for me . . .. I loved BOCES, I would recommend it to anyone" (CO-4-2, 404-405). June was thankful for her teachers, too. "I had really good teachers. They helped me prepare for college" (CO-8-1, 34-35). Fran pointed to her teacher at BOCES as being particularly supportive compared to her home school's teachers. She described that a good teacher is "someone like you can talk to and they won't judge you for having an opinion; one that doesn't talk down to you; someone who understands what you're going

through" (CO-4-2, 397-399). Gina spoke generally about what makes teachers effective pointing to "a lesson that you can actually retain because they take their time. They'll go one-on-one and help you with it" (CO-1-1, p. 6). She further explained that in her experience, failure was not terminal. "I messed up all the time, but it was okay because my teachers would sit down with me and explain it" (CO-1-1, p. 7). What it comes down to for Gina is the student to teacher relationship. For the student's part, she advised to "smile, pay attention a lot and ask a lot of questions; they will know your name by the end of the first day" (CO-1-2, 102-103). For the teacher's part, demonstrating a caring attitude towards students is the key to keeping them engaged. When she was ill and in the hospital, Gina's teacher "would come to the hospital and like tutor me . . .; I never had a teacher that cared that much about his students" (CO-1-2, 559-560). In similar fashion, Becky credits her desire to become an Earth Science teacher with a high school teacher who "made it really enjoyable and she was like really organized and I understood it. I did really good in her class" (CO-6-1, p. 7). Eileen found that a CTI teacher in particular was an important influence and when asked at the end of her first interview if she had any closing thoughts about her CTI experience and how it led you to being ready for the next stage in your life, she described it this way:

> It was the best thing I could have chosen during high school. Instead of me just wandering the hallways it was like going out and meeting people that care about you and want the best for you; that's something you don't find in many teachers. She puts the time and everything into you which is the greatest thing she could do for me. (CA-2-1, 262-266)

Adult support

Some participants talked about how other adults provided support and inspiration or pursuing their career interests. For example, Eileen talked about a manager at her workplace who would create small competitions "to do better and faster no matter what the job" (CA-2-2, 627-628). She described him this way: "It's like having a buddy but also having a competitor every day challenging you with something new" (CA-2-2, 618-620). Heidi expressed a desire to go into business management and talked about an uncle who served as an inspiration to her. "I got a lot of influence from him because like he came from Jordan and he only had $10 . . . and now he's like one of the best business owners in Poughkeepsie" (CO-3-1, 233-236). Carrie, too, found that she was inspired by seeing her father in action in the medical field. "Yeah, it inspired me because I wanted to do what he was doing, to see him interact with the doctors and the patient and everything" (CO-7-1). Adam described a formative experience when he volunteered at a soup kitchen where the owner "kind of mentored me . . . into that career" (CA-4-1, 337-338). For Fran, it was a cheerleading coach who "would always push me to do better in school" (CO-4-1, p. 6) so that the athletes would remain eligible to compete. "She would always help us do better in school and stuff" (CO-4-1, p. 6). June, on the other hand, wished that she had more support from the adults in her life. "I feel like maybe if I had more support by people, it might have helped me a bit more, like my family wasn't so supporting while I was transitioning" (CO-8-2, 380-381). Luckily, Carrie's experience was different and she enjoyed a "support system" in that "good friends and family wise they helped me get through it and teach me as well" (CO-7-3, 113-115). Becky described her mother's support and that "she's the one that always is talking to me about [making] something of myself; I look at her and I'm like, no offense to her, but I don't want to be like that" (CO-6-1, p. 11).

Study skills

June credited her high school teachers with teaching her study skills – something that made her feel ready – something that she could transfer to her college experience:

> I felt pretty ready. When I first started thinking about college I was pretty nervous but throughout high school I did really well. I had really good teachers, they helped me prepare for college, they like my resource room teacher he always helped me prepare, he'd like when I started looking up colleges and like started getting ready to apply for college he helped me with financial aid, like what I had to do and how I could get that done. I also felt like they taught me new study methods that have helped me like succeed. (CO-8-1, 33-39)

Carrie was more overt about crediting CTI specifically for teaching her important study skills that prepared her for college. "While you're going to BOCES obviously you have to learn how to do things like study; it's not the same as being in high school and studying . . . in college it's almost the same, so that's where I felt ready" (CO-7-1, 135-139). When asked the question, "If you could create the ideal high school experience that would lead to the greatest college and/or career readiness what would it look like?" (Interview Instrument 3, Appendix E), June's response was emblematic of participants as a whole when she said, "Well, I would definitely use hands-on learning. That's what I would use I think; it's the best" (CO-8-3, 34-35).

Learning itself

Participants reflected on the learning that resulted from their hands-on learning experiences in a variety of ways. Eileen, in addition to feeling the match between her learning style and hands-on learning mentioned earlier, often became philosophical, positing that CTI helped her understand that "you better learn with the best of them, take whatever they teach you

and become the best yourself" (CA-2-2, 637-639). Adam felt similarly that hands-on learning helped him to learn better and thus be more ready because he said, "I'm more of a tactile learner, so I think hands-on learning is a lot more helpful than actually reading in a book" (CA-4-3, 13-14). Didi felt similarly, that "you learn a lot more of that actually doing it than you do by learning about it" (CA-5-1, 331-332). Didi also remarked that it was effective to use humor to foster learning and described a teacher who told students "if it's stupid enough, you'll remember it" and then related an example of how her Spanish teacher did this. We thought she was joking and sure enough we all remembered it a couple days later when she asked what she wrote on the board" (CA-5-1, 387-400). In her third interview, Didi identified learning as being the thing that leads to confidence, that "it gives you not just motivation…but it gives you something that you want it and it kind of materializes and you want a career" (CA-5-3, 105-110). Heidi found that learning happened at the workplace. "Working helped me learn a lot . . . I just learned a lot . . . I became a lot more social because I had to go up to customers and ask them if they needed help with anything and stuff like that" (CO-3-1, 329-334). June found that her early experiences in learning about a special needs family member helped her become more ready for further study.

> My nephew that was the first part of learning about them. I was younger; it was something I really didn't know much about but as I started to watch him more and the things that he did . . .. I would learn ways to help him communicate more. (CO-8-1, 243-246)

These early learning experiences helped prepare her. Combined with her CTI field experiences, it prepared her for the work she would do in college when she interned in a school. "So it kind of prepared me . . . because I already knew how kind of they did learn" (CO-8-1, 233-237).

Carrie synopsized this idea well when she answered the question, "What does readiness mean to you?" when she answered, "taking stuff that you learned before [makes] it easier for you to maybe transition into college" (CO-7-1, 36-37). In the second interview, Carrie extoled the practice she was given in the kinds of skills she would need to learn to be a nurse. "In CTI . . . we would go to the lab and use dummies to maybe do certain activities or certain tasks such as . . . blood pressure and changing a Foley catheter . . . giving showers, taking vitals; all of [those kinds] of things helped" (CO-7-2, 143-146). Finally, in her third interview, Carrie acknowledged the benefit of having had pre-exposure to nursing skills from her hands-on learning experience claiming that she "learned more and I came into it with like some knowledge of what I was going to learn and the background information" (CO-7-3, 28-29). Similarly, Gina pointed out that because she "had the experience with that type of school work [she knows] what to expect" (CO-1-2, 317-318).

Sub-finding 4 Summary

Participants perceived that they entered their new post-secondary venues with more confidence and greater preparedness than their counterparts who followed a more traditional high school path. Similar to sub-finding statement 1, participants felt that, because hands-on learning matched their learning styles, their CTI experience was more conducive to their learning the study skills they would need as first year college students and the work-related skills they would need in jobs related to their field of study there. They felt bolstered by the fact that they had choice in what they were studying and this caused them to be more engaged in the learning itself. Several participants found that teachers had a major influence on them and either inspired them to pursue a particular career path or contributed to their feelings of preparedness in the new venues which they found themselves because of the relationships they had built with participants.

Some participants felt that they learned valuable study skills that they could apply to their college classes. In some cases, participants felt prepared by their teachers because of their matter-of-fact depiction of how the world operates; they were given a sense of the "real world" such as Isaac when he, for example, described how a teacher "kind of opened my eyes that not everyone is going to sugar coat everything for you" (CO-5-2, 39-40). Still other participants found inspiration from adults in their lives such as parents whom they observed in the field or supervisors whom they encountered in the workplace. Adult support gave participants the boost they needed to find purpose in their college and career pathways. Eileen summarized it nicely when she said that "CTI taught me what I needed to learn before going out into the world" (CA-2-1, 100).

Summary of Chapter Four

Chapter Four presented the major finding and four sub-findings that resulted from a coding regimen and constant comparison analysis that occurred during three layers of interviews of 10 research participants. Finding statements emerged from careful, exhaustive review of interview transcripts that occurred over several months. As transcripts were reviewed and coded, a code book was generated and over time coding groups were established to consolidate codes that appeared to fit together in coding groups. With the help of brainstorm sessions, the researcher identified a major finding statement that describes overall participants' perceptions of their readiness thanks to a hands-on learning experience in high school. Underneath that major finding statement emerged four sub-finding statements: exposure, planning for college and career, skills/dispositions, and learning that are summarized below.

Major finding statement

The major finding statement emerged as an overarching statement under which were four sub-finding statements germinated. Finding statements emerged from the review, coding, and analysis of three levels of interviews that progressed over the course of several months in the spring of 2017. Participants overall found that their hands-on learning experiences through BOCES CTI were beneficial in developing their readiness for their lives after high school, be that in a workplace setting, a college setting, or in some cases both settings. Clearly, a major benefit for participants was that hands-on learning matched what they perceived to be their learning styles. They viewed their ability to retain information as more apt to happen when learning included a hands-on component than if they were learning abstractly from a book or a lecture. There was ample evidence from the transcripts that participants placed value on experiential learning that they felt was unique to CTI and contrasted with their home high schools. To illustrate how the major finding statement served as an umbrella statement, Figure 10 was developed. The figure depicts the intertwining relationship between the four sub-findings all centered on the concept of readiness. The major thrusts of the four sub-findings all can contribute to participant readiness.

Sub-finding statement 1

Sub-finding statement one emerged from the transcripts of participants who credited their readiness to the exposure they received to the environs and skills associated with their career paths. The codes that were named and explained in this subsection and that were highlighted because of their coding prominence were: experience, experiential learning, hands-on experience, exposure itself, learning what one wants to do, confidence, and real world. The experiences themselves that gave participants exposure to the demands of the workplace and/or

college tended to give them the confidence and a sense of purpose necessary for them to find success in their new post-secondary lives.

Sub-finding one was validated in the words of participants who perceived that they received valuable exposure to their actual career fields by working. They learned what work was all about, namely, that there were certain social interactions with the public, for example, that required patience, friendliness, and even self-control. They found that internships gifted them with a sense of what the work entailed and prepared them for first jobs. Participants also perceived that their pre-exposure to content in their college major gave them a boost that put them slightly ahead of their peers who had little or no exposure. Pre-exposure gave them confidence in their college coursework because it lent familiarity to the skills and knowledge demanded in their new venues.

Exposure to career field work gave participants a sense of the proverbial real world and helped them confirm what they wanted to be or do, also known as the code "learning what one wants to do." By contrast, in some cases, exposure to career field work led participants to decide that what they did not want to do, a valuable realization to make before committing to a job in the field or a college course of study. Participants identified hands-on coursework as most useful because it created lasting learning – talked about more extensively in sub-finding statement four – and because it appealed to their learning styles.

Sub-finding statement 2

The fact that BOCES coursework had a particular focus like a college department or discipline created a natural concentrated focus on a career path and this organically facilitated college and career planning. The codes most prevalently referenced from which this sub-finding

statement emerged were explained in detail in this chapter: career field, career planning, college, license, and preparation.

Participants were quite overt with recognition that BOCES was the linchpin that connected their career exploration in high school with their actual career path or college major field. As students, they liked having an emphasis because it gave them what June called a "push" – a word she mentioned eight times in her first interview - into their major fields of interest. In the end, the specific area of focus such as cosmetology, early education, or nursing elicited a sense of purpose in participants that is not typically matched in the traditional high school where the program of study is generalized.

Participants recognized that career planning was sparse in their home high schools. Although it should be noted that the BOCES course of study generally happens in junior and senior year, the years that typically home high schools are guiding students in their thinking about careers. Still, most participants spend half of their days at their home high schools so this opportunity is not entirely lost. There was some recognition that career planning discussions were had at BOCES, but it was unclear from the data how formalized this was or how frequent. However, participants did note that their advice to high schools and to high school students was that they should take an actual course in career planning or at least seek out experiences in their fields of interest.

Young people in their first year out of high school talked about college as an expectation and those that chose not to go were still thinking about it as something they envisioned in their futures. All of the participants who were attending college were enrolled in a two year community college and most of them had ambitions to attend a four year school after two years. One participant had even tried to attend a four year school but ended up leaving homesick after

two weeks. Whether they were attending college or not, participants who were able to earn a license as part of their CTI experience viewed this as advantageous because it enabled them to land a good job right out of high school and gave them the confidence to not only seek out those jobs but to perform well in them. Overall, preparation as a code was mentioned prominently because participants viewed their BOCES experience as having a positive impact on their preparation for both college and career. Their answers reflected a positive attitude that BOCES significantly prepared them for their college experiences and gave them a confidence in their career paths.

Sub-finding statement 3

The thrust of sub-finding statement three is that attending college or starting a job in one's career path requires certain skills and dispositions in order to be successful. Thus, the researcher explained in detail three codes that supported this finding statement and that were featured prominently in the data: time management & balance, work dispositions, and social skills. Time management and balance were separate codes but combined by the researcher because they are so closely related.

Respondents in general felt that time management was an important skill because what they had not encountered before starting a college experience or a work experience (or both) was that they had discretionary time for the first time. In many instances, participants had to juggle multiple responsibilities like working, classes, and social lives. Participants felt that there should be training in time management in high school because of its role in being able to function where time is not regimented anymore. At the same time, there was acknowledgement that CTI did provide training in time management that gave participants the ability to find balance.

Like any first time employee, participants discovered that there were certain work dispositions that were necessary for being successful in employment such as professionalism, courteousness, appropriate dress, getting along with others. Participants pointed out that they were exposed to and learned about these dispositions in their BOCES programs which helped them be successful once they had exited the program. Their training at CTI, they reported, included learning about work dispositions. In some cases, participants learned this directly in jobs they held in high school and after. Similarly, participants identified dispositions necessary for success in the college classroom that had crossover with work dispositions. For example, doing group projects required an ability to work with others by suppressing personal discomfort or annoyance for the good of the group (or customer). Both domains require a certain work ethic that was cultured at BOCES and that included things like responsibility and working hard.

Skills that participants talked most about were social skills, something that has crossover between college and the workplace. Some participants found that they learned about this in the workplace directly because they were forced to learn it in order to keep their jobs. Still others found that the social exposure gained by attending classes in a different place, at BOCES, fostered an ability to develop new friendships and social skills. Several participants identified themselves as being shy previous to their BOCES experience and that it helped them to overcome that shyness and develop an ability to be social with practically anyone.

Sub-finding statement 4

Sub-finding statement four is centered on learning and was derived from combining several codes and code groups that shared a similar gist. The subsections that resulted and that were explained in detail were: choice, teachers, adult support, study skills, and learning itself.

The readiness of participants was impacted by their learning, their ability to choose, by supportive teachers and other adults, and by their grasp of study skills.

Participants were titillated by their ability to make the choice to be in a BOCES program that focused on a career interest. Having the ability to choose gave them a sense of ownership over their chosen career path and this led to a sense of purpose. Participants looked forward to when they could choose their own courses in college, having received a taste of the ability to choose. What's more, some respondents asserted that students should be given the choice between hands-on learning and classroom learning because each one appealed to different learning styles or preferences.

A major influence on participant readiness that was often referred to was that of teachers and other adult supporters. They related how they were fortunate to attend BOCES where they found teachers to be understanding of who they were. Participants valued the relationships they built with their CTI teachers who were described as being caring and understanding. In similar fashion, participants related to the researcher about how other adult influences like parents and other adult family members contributed to inspiring them. For example, they talked about family members who were successful in business or who were established in a field of interest.

Another topic that garnered discussion was that of study skills which participants reported they learned about at BOCES. As a result, they felt ready for college courses where study skills and study discipline are necessary for success. There was quite a bit of talk amongst participants about learning style and how it led to greater readiness because they found that their hands-on learning experience at BOCES supported their learning styles and led to deeper learning. Participants perceived that they were more ready because of the solid learning they experienced as a result of hands-on learning experiences. Consequently, they entered college,

the workforce, or both with the perception of a greater confidence and sense of purpose than if they had attended a purely a traditional high school program.

Statement of Ethics

All research associated with this dissertation was conducted in an ethical manner. Written consent to participate was received from the District Superintendent of Dutchess County BOCES (Appendix Q), the principal of the Career and Technical Institute (Appendix R) before the interviews were conducted. Participants who agreed to participate completed a consent form (Appendix H). The researcher himself collected all data. This researcher has no direct affiliation or influence over participants' course work. Program participation did not impact students' grades. The former students are no longer associated directly with CTI. Privacy was protected and confidentiality maintained by numerically coding student names and establishing pseudonyms. Participation was voluntary and participants were free to withdraw at any time without penalty. Data was kept in the researcher's school office in a locked filing cabinet. Final reports were made available to participants upon request. A Human Subjects and Vertebrate Animals form known as the HUM-1 Form was submitted to the IRB at Western Connecticut State University and approved by that body. All efforts were made to guarantee the confidentiality of the subjects being interviewed through the use of pseudonyms and care was taken to not include identifying information of any kind. Permission was sought from the subjects for participation in the research project who were notified of the authorization from the superintendent and principal, that confidentiality would be maintained, and that permission from the IRB had been granted to conduct the interviews within the allotted time frame (Delcourt & Burke, 2014).

Conclusion

Three levels of interviews provided data saturation that ultimately led from a code book of over 250 codes (Appendix K) that were reduced to 16 code groups. Through an analytical review of these code groups, a process of identifying a hierarchy of coding frequency unfolded and groups were further reduced to four main thematic code groups. Theme development resulted in an overarching finding statement and four sub-finding statements. What follows in chapter 5 is a summary and study conclusions.

CHAPTER FIVE: SUMMARY AND CONCLUSIONS

Introduction

This chapter is devoted to providing a summative overview of the current study and obviating conclusions made by the researcher relative to the college and career readiness of participants who experienced a hands-on learning program as part of their high school academic program. The chapter will be organized by discussing each finding statement and accompanying subsections for each that include: A summary, recommendations, and directions for future research. Connections will be made between the study findings and it will include discussion of the relationship between the literature review in Chapter Two and the study findings in Chapter Four.

Overview of Study, Connections to Literature, Recommendations, and Future Research

This section is focused primarily on providing the reader with an overview of the current study. The purpose of the current study was to investigate the perceptions of recent high school graduates about their readiness for post-secondary lives and the impact an experiential learning program had on that readiness as they attended college, pursued work lives, or engaged in a combination of both. The researcher endeavored to explore qualitatively the perceptions of recent high school graduates on their readiness for life after high school based on their participation in a hands-on learning program at the Career and Technical Institute, an offshoot of the Board of Cooperative Educational Services, an agency that supplements the educational offerings of 13 high schools in Dutchess County, New York. A limited number of students are able to participate in the program because of both the capacity of CTI and the funding limitations of each school district. However, the researcher explored to what extent young people were impacted by their participation in an experiential learning program. That is, to what extent did

participants feel a greater sense of readiness as a result of their engagement in hands-on learning compared to a more traditional high school experience? The research question was, What are the perceptions of high school graduates who engaged in experiential learning regarding their readiness for college and career?

A sample of participants from the population of 237 recent graduates from CTI, located in Dutchess County, New York, were chosen because the site held the most possibility as a rich source of data relative to experiential learning. CTI offers an organized and structured hands-on learning experiences available to public school students in New York State and it contains a healthy variety of programmatic focuses that provide participant variation within a common approach and experience.

All 237 year 2016 graduates were sent letters of invitation to participate in the study alongside a letter of introduction from the CTI principal, Mitchell Shron, to both lend authenticity to the study for potential participants and at the same time to provide a familiar voice to the endeavor and to assuage any concerns they might have at the random contact. A demographic survey was also included in the mailing with a self-addressed, stamped envelope provided for the convenience of respondents. Fourteen individuals responded and sent back the demographic survey (Appendix B), but only 10 signed the consent letter and were willing to continue as participants in the study. Fortunately, the respondents met the criteria the researcher was looking for in the purposeful sample as discussed in Chapter Three – Methodology.

Once there were 10 firm, committed respondents whose surveys indicated potential for valuable data related to the research question (n = 10), the researcher set up the first round of interviews. Interviews commenced in February of 2017 and extended until the final interview (CO8-3), with the participant with the pseudonym of June, was conducted over the phone in July

of 2017. Participants consisted of young people one year out of high school who were engaged in some kind of post-secondary pursuit either enrolled in a two-year college (n = 3), working in the field (n = 3), or both (n = 4). The participants were enrolled in a variety of five different focuses in their hands-on learning in high school: cosmetology, auto body, nursing, early education, and culinary arts. Interviews were recorded digitally and then sent to a professional transcriber via a confidential Drop Box account. During the interviews, the researcher took notes, a sample of which can be seen in Appendix S. Once transcriptions were completed, they were printed and the researcher commenced a cursory reading of each one. Meanwhile, interviews continued and the process created a kind of steady, cascading collection of data. Constant comparative analysis occurred recursively beginning with a cursory reading of the transcripts to identify words, phrases, and ideas that appeared interesting and underlining them. This was the first step in a reductive analysis whereby the researcher kept an open mind to any meaning that may have emerged out of the text. Ideas, words, and phrases that appeared to be emergent codes were also written in the margins. Meanwhile, the researcher hand-wrote summaries of each interview to create a narrative that could synopsize the overall thrust of each one. A sample of an interview transcript summary can be seen in Appendix R.

After an initial reading of the transcripts was made, the transcriptions were uploaded into a qualitative research software program called HyperResearch (Researchware, Inc., 1997-2016) to assist in facilitating an organized coding process. The transcripts were read rigorously, line by line, and text was highlighted and marked with ever-increasing open code assignments until a large code book of 251 items developed from the transcriptions (Appendix K). Further reduction of codes was accomplished by eliminating redundant open codes and grouping the remaining

codes that appeared to be related into code groups. An overall thematic code group title was then assigned and these groupings can be found in Appendix T.

Procedures for additional phenomenological reduction ensued where the researcher mind-mapped emerging findings to identify relationships between codes and concepts and further group them into meaningful clusters and ultimately emergent finding statements (Appendix U). What emerged, ultimately, was a major finding statement and four sub-finding statements. They were as follows:

Major finding statement

Participants in a hands-on learning experience perceived themselves as being more ready for college and/or careers then if they had remained exclusively in a traditional high school setting.

Sub-finding Statement 1

Participants perceived an enhanced level of readiness as a result of the exposure they encountered that gave them familiarity with their focus area that resulted in confidence and engendered a sense of purpose and self-efficacy.

Sub-finding Statement 2

Participants perceived that their hands-on learning experience served as planning for their college or career field, confirmation of college and career choices and decisions, and led to confidence in college and career paths.

Sub-finding Statement 3

Participants perceived that they developed valuable work dispositions that were applicable to college and career experiences like social skills, time management, and an ability to make friends.

Sub-finding Statement 4

Participants perceived that the non-traditional experiential nature of hands-on learning, coupled with supportive teachers, led to readiness skills such as useful study habits that could be applied to their new college and/or career settings.

The current research elicited a major finding statement and four sub-finding statements that are represented by Figure 11 below. Participants perceived that their hands-on learning experiences led them to feel more prepared for their lives after high school than if they had stayed in the traditional classroom (major finding statement − experiential learning). They perceived that being exposed to the realities of the work world and of the college world ushered in a sense of readiness (sub-finding statement 1 − exposure) and at the same time facilitated planning for college and/or career (sub-finding statement 2 − college/career planning). In addition, hands-on learning experiences helped participants develop work dispositions that gave them an advantage when it came time to be employed (sub-finding statement 3 − dispositions) and lastly experiential learning prepared participants for the learning readiness they would need in college coursework and/or new employment (sub-finding statement 4 − learning).

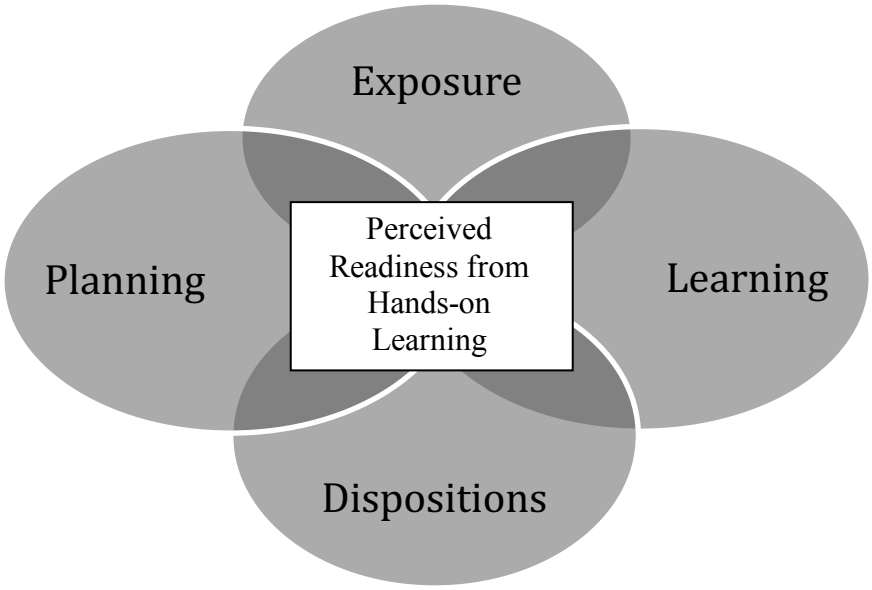

Figure 11. Finding Statements

What follows is a discussion of the major finding statement and the four sub-finding statements, brief connections to the major supporting literature, resulting recommendations of the current researcher, and suggestions for further research. The major finding statement is related and supported by the four sub-finding statements so the discussion will begin accordingly with the overarching major finding statement.

Major Finding Statement

Introduction

The major finding statement that emerged from the current study reflected participant perceptions that they benefitted from attending CTI overall because they felt that it better matched their learning styles; they perceived that they had a proclivity for hands-on learning. Participants did not necessarily have a sophisticated understanding of learning styles, exactly, but their instincts told them that they were more engaged by active learning that enabled them to physically apply classroom learning in authentic settings. The data related to the major finding

statement were consistent with the literature (Gentry, Peters, & Mann, 2007; Lent, 2013; Phi Delta Kappa International, 2017; Southern Association of Colleges and Schools Commission on Colleges, 2013), and confirms the benefits of experiential learning. An overview of the major literature discussed in this section is displayed in Table 12. The connections to the literature, implications, recommendations, and future research are discussed in this section and address the major finding statement, Participants in a hands-on learning experience perceived themselves as being more ready for college and/or careers then if they had remained exclusively in a traditional high school setting.

Table 12

Major Finding Statement Literature

Finding	Related Literature	Recommendations	Future Research
Major Finding Statement: Participants in a hands-on learning experience perceived themselves as being more ready for college and/or careers then if they had remained exclusively in a traditional high school setting.	Phi Delta Kappa International (2017), Experiential learning supplements and complements college and career readiness.	Consider Experiential Learning to be part of college and career program development for all students.	Investigate experiential programming that can be successfully weaved into current educational systems.
	Gentry, Peters, & Mann (2007), CTE experiences create the ideal conditions for engagement that lead to feelings of readiness.	Capitalize on the benefits of CTE for students by infusing more opportunities for autonomy, interaction with others with similar interests, relevance, & caring teachers.	Explore the connection between student choice/autonomy, caring teachers, and interaction with peers and its effect on student engagement and success.

(continued)

Table 12

Major Finding Statement Literature

Finding	Related Literature	Recommendations	Future Research
	Southern Association of Colleges (2013), Experiential learning enhances student engagement and sets students up for post-graduation success.	Actively look for ways to provide students with opportunities to apply 21st century skills through experiential learning.	Evaluate experiential learning programs are currently in place and to what extent they are impacting graduates.
	Lent (2013), Experiential learning facilitates "career-life preparedness" whereby students gain soft skills.	Adopt experiential learning practices that are framed by Social Cognitive Career Theory to develop 21st century skills.	Evaluate current programs that target career preparedness to assess their effectiveness within the SCCT framework.
	Bandura (1986), Decision making related to career focuses and college majors is related to self-efficacy and other precepts of social cognitive theory.	Understand the theoretical underpinnings of self-efficacy and how it relates to college and career readiness.	Establish the ways that current research is grounded in foundational theories on self-efficacy.

Connections to literature

Participants in the current study perceived that they were better prepared for college and careers as a result of their experiential learning experience at CTI. This may be a result of the Career and Technical Education (CTE) thrust of the program where it has been found that feelings of readiness result from higher engagement (Gentry, Peters, & Mann, 2007). Public

support for combining college and career pathway preparation for secondary students is evident (Phi Delta Kappa International, 2017). While infusing a more rigorous and systematic college and career planning regimen might seem daunting to school leaders on the macro level, it has been suggested that teachers and guidance counselors can introduce micro-level classroom activities and learning experiences that challenge young people to continually think about and set goals for college and careers starting in elementary school (Lent, 2013). The data presented in the current study and the perceptions of business leaders and academics reflected in survey data (e.g., Phi Delta Kappa International, 2017) would suggest that it is beneficial to provide students with experiential learning opportunities that supplement and complement college and career planning across the grades (Lent, 2013).

Researchers would find the major finding statement to be of interest because it indicates serendipity between participants' positive perceptions of the impact of experiential learning on their growth and development and the preponderance of research (Gentry, Peters, & Mann, 2007; Lent, 2013; Phi Delta Kappa International, 2017; Southern Association of Colleges and Schools Commission on Colleges, 2013). Educators, policy makers, politicians and indeed researchers should take interest in researching why so many college-bound students do not finish their degrees. Part of the answer lies in the data presented herein that reflects the perceptions of the young people themselves as to how experiential learning has merit in better preparing young people for the transitions they will encounter after high school. Thus, CTE experiences create the ideal conditions for engagement that lead to feelings of readiness (Gentry, Peters, & Mann 2007).

Hands-on learning appealed to participants' sense of their own learning styles. Participants frequently reported about how they viewed themselves as learning better through

authentic activities where they could apply knowledge rather than the traditional classroom learning that involved academic activities such as note-taking and reading from a book. As a result, participants were more engaged in their programs of study at CTI because they believed that the program was a good fit for them personally, particularly in how they viewed the most effective conditions for their own learning. The only danger to participants perceiving their learning styles as matching the kind of learning going on at CTI is that if they chose to go to college, they would still be faced with traditional classroom learning. They would need to adjust their learning styles somewhat if they were going to be successful in college.

Recommendations

Participants in the current study were in their first year out of high school. While it was desirable to discover what struggles they were encountering as a metric for their readiness, it was also an inhibitor because participants did not have the benefit of time and maturity for reflection purposes. Still, participants gravitated towards this hands-on learning opportunity at CTI because the traditional high school learning experience was viewed by them as a poor match for the way they learned best. Participants often cited distaste for the traditional academic activities such as book learning, taking notes, and memorization. They much preferred using their hands because it was something that had a greater chance of sticking in their memories. Participant perceptions of their preferences for hands-on learning suggested that they had encountered difficulty during their high school careers with traditional instructional methods. It is recommended that college and career planning include participant discovery of learning styles. Moreover, it would be beneficial for all teachers to infuse both experiential learning experiences and career planning discussions into their curricula and for school systems to consider experiential learning to be part of college and career program development for all students.

School leaders have an imperative to make sure that instructional staff understand the theoretical underpinnings of self-efficacy and how it relates to college and career readiness. In addition, it is recommended that schools capitalize on the benefits of CTE for students by infusing more opportunities for autonomy, interaction with others with similar interests, relevance, and caring teachers. Overall, based on the data and literature presented here, it is recommended that schools actively look for ways to provide students with opportunities to apply 21st century skills through experiential learning.

Future research

Current experiential learning programs should be evaluated to establish the ways that current research is grounded in foundational theories on self-efficacy and to what extent the programs are impacting graduates. It would make sense for the next step to be researching experiential learning effects by investigating CTI graduate perceptions in three years after they began their undergraduate studies so that the data might benefit from participant maturity and the further fermentation of their reflections. It would behoove the personnel at the CTI program to explore how it might introduce a more rigorous and structured reflection regimen so as to deepen student understanding. This might make a good quasi-experimental design to investigate the effect of a reflection program as a treatment within the Social Cognitive Career Theory (SCCT) framework. For schools that do not have a hands-on learning component, it would be beneficial for them to investigate experiential programming that can be successfully woven into current educational systems. At the same time, school personnel ought to explore the connection and effects on student engagement and self-efficacy produced by student choice and autonomy, caring teachers, and interaction with peers.

Conclusion

The major finding statement emanated from participant perceptions about readiness that resulted from experiential learning experiences and that is supported by current literature (Gentry, Peters, & Mann, 2007; Lent, 2013; Phi Delta Kappa International, 2017; Southern Association of Colleges and Schools Commission on Colleges, 2013). Participants in the current study felt ready for the lives they faced after high school and credited feelings of readiness to their CTI experiences because their experiences appealed to their sense of learning style, engaged them more, and set them up for post-secondary success. As stated earlier, the current study elicited four sub-finding statements that emerged from participant responses and fell under the major finding statement. The next section will discuss connections to the literature, implications, recommendations, and future research related to sub-finding statement 1.

Sub-finding Statement 1

Introduction

Sub-finding statement 1 was focused on exposure and how participants might have perceived the impact of actual exposure experiences to college and work readiness. Table 13 lists the major literature related to exposure. What emerged from the data was that participants felt that they had an advantage over non-experiential learning students because they had been exposed to concepts related to their field of interest. Exposure boosted their confidence because they felt a familiarity with the subject matter before commencing their college coursework. Overall, participants reported that when they began new jobs or college courses of study, they encountered less stress than if they had commenced with no previous experience or exposure. Participants felt that their BOCES experience affirmed their career choices and gave them the confidence they needed to persevere in post-secondary venues. This section discusses the related

literature, implications, recommendations and future research as they pertain to the first sub-finding statement, Participants perceived an enhanced level of readiness as a result of the exposure they encountered because it gave them familiarity with their focus area and resulted in confidence and engendered a sense of purpose and self-efficacy.

Table 13

Sub-finding Statement 1 Literature

Sub-finding	Related Lit	Recommendations	Future Research
Participants perceived an enhanced level of readiness as a result of the exposure they encountered that gave them familiarity with their focus area that resulted in confidence and engendered a sense of purpose and self-efficacy.	DeLorenzo (2000), Experiential learning exposure such as internships or co-op experiences contributes to career self-efficacy.	Infuse more opportunities for all secondary students to participate in internship experiences that give them exposure to career work.	Explore work-based experiences available to high school students that most contribute to career readiness attributes.
	Esters and Retallick (2013), Experiential programs such as Science With Practice increase career self-efficacy and vocational identity.	Introduce experiential learning programs about which effects can be measured relating to career exposure.	Identify experiential curricula that can seamlessly be introduced at the high school level and evaluate the effects of a pilot of one of the programs.
	Ambrose and Poklop (2015), Co-op experiences in college extend and supplement academic curricula by increasing motivation, engagement, and self-direction.	Create opportunities for high school students to participate in internships related to career interests.	Investigate the college completion effects and job satisfaction effects of a high school internship program.
	Peter D. Hart Research Associates (2006), Employers and students were surveyed and agree that colleges should emphasize hands-on learning.	Establish initiatives whereby high school students can apply skills and knowledge in authentic settings.	Survey recent high school graduates about the extent to which they were exposed to college and careers and their attitudes about experiential learning relative to their confidence in post-secondary pursuits.

(continued)

Table 13

Sub-finding Statement 1 Literature

Sub-finding	Related Lit	Recommendations	Future Research
Participants perceived an enhanced level of readiness as a result of the exposure they encountered that gave them familiarity with their focus area that resulted in confidence and engendered a sense of purpose and self-efficacy.	Wee, Weber, and Park (2014), Participating in a practicum experience increased levels of confidence of early childhood education students at the college level.	Challenge teachers and counselors to find ways to expose students to the practical application of skills and knowledge outside of the classroom.	Measure the effect sizes of best practice activities in college and career exposure at the high school level.
	Vargas, Hooker, and Gerwin (2017), Dual-enrollment can help diminish the high percentage of college non-completion rates, can help more students graduate high school, and can help more students enroll in college.	Build into high school programs more opportunities for dual-enrollment courses to give students exposure to college coursework and a sense of college life.	Study the effects of the available college and career exposure programs to discover what are the most effective programmatic means to develop readiness.
	McCarthy and McCarthy (2006), Job shadowing is preferred over studying case studies because it is more experiential.	Include job shadowing experiences in high school career planning.	Build upon the comparison between abstract planning versus experiences in the field testing other experiential activities and their effects.

Connections to literature

Participants were laudatory about their BOCES experiences because they felt that CTI helped solidify what they wanted to do after high school and in some cases what they did not want to do. A major reason for their confidence is that participants gained an understanding of

what their chosen field was like through the exposure they gained from experiences in the field. Previous research highlighted the benefits of co-op experiences (Ambrose & Poklop, 2015), dual-enrollment (Vargas, Hooker, & Gerwin, 2017), job shadowing (McCarthy & McCarthy, 2006), and internships (Darche & Stam, 2012) that all infused exposure to the realities of the workplace or the college setting. Exposure to either college or a work setting was essential to participants in confirming that their career choices or college major choices were the right ones for them.

The phrase "real world" is one that participants used naturally in the course of the interviews. It is no coincidence that the literature also reflected the use of this phrase such as Ambrose and Poklop (2015) who used it 10 times in an article that described the co-op experiences at Northeastern University. Kolb (2015) himself asserted how one's personal development is encouraged through experiential learning experiences that join classroom learning to the "real world" (p. 4). Recent graduates and business leaders alike agree that hands-on learning experiences are crucial in giving young people real world experience so that they can apply classroom learning in an authentic setting (Peter D. Hart & Associates, 2006).

Another aspect of exposure that participants found useful was that their experiences in the field gave them confidence later when they encountered similar experiences in their college coursework, in an internship in the same field, or in a job in the same area that was their focus at CTI. Participants reported that they felt they had an advantage over other students and that this pre-exposure made them feel knowledgeable and confident in tackling the new challenges they faced that demanded their pre-loaded skills and knowledge. This phenomenon is consistent with Bandura's (1986) theory about self-efficacy. Ambrose and Poklop (2015) illustrated the increase in confidence that neophytes felt when they were able to conjoin coursework with authentic,

real-world experiences that were an essential component of internship experiences. Participants in practicum experiences also generally demonstrated an increase in confidence (Wee, Weber, & Park, 2014).

Considering the value of hands-on learning vis-à-vis the thoughts of CTI graduates, it appears that experiential learning is part of the general secondary school experience haphazardly at best. Certainly, participants found that their confidence increased as a result of real world experiences. Authentic work experiences such as the ones that participants enjoyed as part of their CTI program caused them to feel a real connection to the world beyond school. Moreover, participants were enthusiastic about the prospect for engaging in the adult world where they encountered aspects of work that they perceived as adult work and also connected to their career interests. Although it seems logical that schools would incorporate experiential learning into the general curriculum, it appears to be the exception rather than the rule. It is evident from the data that the participants in the current research study found their hands-on learning was valuable in developing a sense of career decision self-efficacy and vocational identity (Esters & Retallick, 2013), increased levels of confidence (Wee, Weber, & Park, 2014), and increased motivation (Ambrose & Poklop, 2015). Dewey (1938) philosophized about the importance of learning from experience and is often cited by researchers and rhetoricians. Yet, public schools by and large have continued to operate in a traditional approach akin to schools in Dewey's own time that is generally devoid of experience and exposure to careers and/or college. The researcher's workplace, a school of approximately 3,000 students, sends approximately 120 students to CTI each year, a scant 2.5% of the total population. Participants thrived at CTI because they felt it gave them a more personalized learning experience that was bolstered by supportive adults, it gave them an entrée into the so-called real world, and it gave them a sense of purpose for their

learning that was connected to long-term career goals. Clearly, the CTI capacity has limits; however, all students would benefit from similar programs that have elements of experiential learning approximating the ones that CTI students enjoy.

Recommendations

The evidence available relating to practical experiences in the literature (Ambrose & Poklop, 2015; Esters & Retallick, 2013; Wee, Weber, & Park, 2014) was often at the college level where student lives and schedules were more flexible and less structured. Participants in the current study shared that they found that their experiential learning through CTI prepared them for what they faced once they graduated. Thus, one recommendation is that high schools introduce experiential learning systematically to weave meaningful college and career exposure into the curriculum. The problem currently is that most high school students are intent on attending college after high school and the drive to attend good colleges is highly competitive. This competitive drive causes students to build tight schedules loaded with Advanced Placement courses and at the same time to add on activities that demonstrate well-roundedness. As a result, there is little room on busy academic and extra-curricular schedules to insert career or college experiences that might give high school students the kinds of exposure from which CTI students benefitted.

Currently, unacceptably high numbers of young people who start college do not end up completing degrees. For example, "only 20% of two-year college students complete a bachelor's degree within eight years of high school graduation" and equally staggering, nearly half of all students who enroll in a two-year college do not earn a degree (Ahearn, Rosenbaum, & Rosenbaum, 2016, p. 53). The literature (Ambrose & Poklop, 2015; DeLorenzo, 2000; Esters & Retallick, 2013; McCarthy & McCarthy; Peter D. Hart Research Associates, 2006; Wee, Weber,

& Park, 2014) demonstrated the benefits of a variety of approaches to exposing young people to college and career experiences which suggested that giving all students similar hands-on exposure through internships, job shadowing, co-op experiences, or dual-enrollment might help diminish the non-completer problem. This sub-finding has significant potential for further research because participant data was deepest when it came to the concept of exposure. Presently, it is an opportune time for researchers to build upon large scale surveys like the Phi Delta Kappa International (2017) survey that underscores the value that the public places on the non-academic skills necessary for success in college and careers. Emphasis was placed on the need for graduates to possess a combination of "cognitive, intrapersonal, and interpersonal skills" (Dede, 2017).

Future research

The call for researchers is to find out how we can best prepare our students for what is predicted to be on the career horizon and in particular how experiential learning can be used as a tool in that preparation. Is experiential learning the key to giving students the 21st century skills emphasized by the Partnership for 21st Century Skills: Critical thinking, Communication, Collaboration, and Creativity (P21, 2017)? Public support combined with the overwhelmingly positive perceptions of participants in experiential learning programs is good fodder for researchers to develop studies on the effects of structured programs that offer young people internships, early career exposure such as job shadowing, and planned experiences at colleges that help young people understand what being a college student entails. Researchers are called to explore work-based experiences available to high school students that most contribute to their readiness attributes. There is also a need to identify experiential learning curricula that can be seamlessly introduced at the high school level and to evaluate the effects of a pilot program of

one or more of the programs. It would be useful to investigate the college completion effects and job satisfaction effects of a high school internship program and whether or not the Ambrose and Poklop (2015) study has transferability at the high school level. It would be interesting to add to the current study a quantitative layer by surveying recent high school graduates about the extent to which they were exposed to college and career experiences in high school and the extent to which these experiences led to confidence and career self-efficacy. It would also add to the literature base to explore what current best practices are effective in preparing high school-age children whether or not they can be weaved into the current educational program. Lastly, it would be beneficial to understand the effects of available college and career exposure programs to understand which ones are the most effective in developing readiness.

Conclusion

Sub-finding statement 1 emanated from participant perceptions about their readiness for college and careers which resulted from exposure experiences. It is supported by current literature (Ambrose & Poklop, 2015; DeLorenzo, 2000; Esters & Retallick, 2013; McCarthy & McCarthy, 2006; Peter D. Hart Research Associates, 2006; Vargas, Hooker, & Gerwin, 2017; Wee, Weber, & Park, 2014). Participants in the current study felt ready for the lives they faced after high school and credit feelings of readiness to the exposure they received to college and careers at CTI. Participants arrived at their new post-secondary venues feeling that they had an advantage over non-experiential learning students because the exposure experiences they had related to their field of choice. As a result of the familiarity they felt to coursework and to job environs, participants developed a sense of confidence in their career choices and college majors and they reported feeling less stressed about their career decision-making and their career trajectories. As stated earlier, the current study elicited four sub-finding statements that emerged

from participant responses and that fell under the major finding statement. The next section will discuss connections to the literature, implications, recommendations, and future research related to sub-finding statement 2.

Sub-finding Statement 2

Introduction

The second sub-finding statement identified participant perceptions about how their hands-on learning experience served as a conduit for college and career planning because it gave them an area of focus that naturally led to a career pathway or a college major. While there was limited formal career planning as part of their CTI coursework, such as preparing resumes and so forth, participants placed more significance on the area-of-interest emphasis at CTI because it gave them more direction than the broad overview of the traditional course sequence where practical connections were less apparent. This section provided a discussion of the literature connections, implications, recommendations, and future research that relate to the second sub-finding statement, Participants perceived that their hands-on learning experience served as planning for their career field, confirmation of career choices and decisions, and led to confidence in career paths. The major literature for this section is listed in Table 14.

Table 14

Sub-finding Statement 2 Literature

Sub-Finding	Related Lit	Recommendations	Future Research
Participants perceived that their hands-on learning experience served as planning for their career field, confirmation of career choices and decisions, and led to confidence in career paths.	Hooker and Brand (2010), Early college programs will lead young people to envisioning themselves as college students and will lead to increased enrollment in post-secondary study.	Add to the programmatic choices available for high school students like the ones described by the authors to increase readiness.	Assess the effects of an early college pilot on confidence, college enrollment, and college completion.
	Edmunds (2012), Dual-enrollment programs help develop college readiness and promote college completion.	Add to the layers of available readiness programs dual-enrollment as an option for high schoolers.	Investigate the effects of dual-enrollment programs on the college and career readiness of recent graduates.
	Radcliffe and Bos (2013), College and career readiness should start earlier than in high school especially for at-risk students.	Develop a comprehensive k-12 college and career plan to systematically incorporate college and career planning experiences.	Measure the effects of early college and career experiences on graduation and college enrollment.

Connections to literature

While there was work exposure that was part of CTI, there was less emphasis on giving participants exposure to college environs such as the early college idea described by Edmunds (2012) and Hooker and Brand (2010). However, participants in the current study felt a familiarity with college coursework in their majors as a result of their CTI experiences because it

had given them a content preview that their new college classmates had not received. While coursework content was completely new for most freshman college students, its familiarity to CTI graduates gave them confidence. At the same time, they gained skills like perseverance and grit that were essential in their new-found independent lives and they developed "college knowledge" and "a college-going identity" (Hooker & Brand, 2010, p. 77). For participants who pursued work right after high school, they reported confidence in applying and interviewing for jobs because they had gained experience at CTI and in some cases had earned a license to validate their training. Confidence was an intangible benefit of experiential learning that was girded by the tangible licenses that some participants earned. Thus, participants benefitted from earning alternate credentials, similar to the benefits reported by Ewert and Kominski (2014). Another benefit identified by participants in the current study is what was termed in the literature, "career self-efficacy" (Lent, Ireland, Penn, Morris, & Sappington, 2017, p. 107) which was enhanced by the experiential learning experiences at CTI. Participants encountered career exploration exposure as a result of their CTI program and this benefitted them in terms of their career self-efficacy and career decision-making.

Participants in the current study revealed that their CTI experiences helped solidify their career plans and/or college majors because through them they developed a degree of career self-efficacy. In most cases, participants found that at CTI they solidified career paths and at the same time one participant, Isaac, realized that he preferred to change career direction altogether. Participants were titillated by the notion that they had a specific area of focus in their CTI program of study. What this illustrates to public school leaders is that giving students opportunities to explore areas of interest will help engage them in school and will pay preparational dividends. Some schools, particularly in urban areas, provide students with a

particular focus (e.g., Bronx High School of Sciences**;** Fiorello H. LaGuardia High School of Music & Art and Performing Arts; High School for Law and Public Service). On a smaller scale, some high schools offer courses in a particular area that might lead to a potential career for some students such as culinary arts or early education. They create *academies* to provide students with an emphasis that keeps them engaged and gives them direction. The current study further emphasized that students are more easily engaged if they have a concentration that lends authenticity to their studies. Moreover, providing students with opportunities to earn licenses and other credentials can give them a better chance of finding employment right after high school.

The current study illuminates the idea that there are ways other than traditional education that better prepare our graduates for the transition from secondary school to either college or the workplace. Even without a formal career planning curriculum, participants appeared to benefit from having a career focus. Participants suggested that dabbling in a career area was important preparation. They were asked about their views of the ideal high school and responded that it would be beneficial to connect students to a potential career. Participant feedback was indicative of high levels of career self-efficacy and confidence in career and college major decision-making as a result of experiential learning. To some degree, participant self-efficacy resulted from simply having a focus on a particular career area such as culinary arts or early education with minimal formalized career planning. Two years of a structured program at CTI with a particular focus, however, helped students to develop a vision of their career trajectory. While participant feedback was largely positive as it related to the career and college planning that resulted from their CTI experience, it appeared to be a rather unplanned byproduct and suggested that more could be done programmatically to prepare students for a four year college experience. The

same principle that emerged about the benefit of experiential learning as a mechanism for readiness applies to young people planning to attend college. They would be better prepared from exposure experiences such as the early college initiative described by Edmunds (2012).

Recommendations

Participants benefitted from applying goals and strategies for college and career planning at CTI. One recommendation is that more systematic and comprehensive planning should start earlier than high school as suggested by Radcliffe and Bos (2013). Despite the preponderance of research (Ewert & Kominski, 2014; Hooker & Brand, 2010; Lent, et al., 2017; Radcliffe & Bos, 2013) about the benefits of hands-on learning for all students as a mechanism for preparing them for successful, productive lives after high school, generally there seems to be a lack of will on the part of education leaders to effectuate more experiential opportunities for young people. Some participants were quite pragmatic about the tangible benefits of their hands-on learning experiences and they recognized how they would be immediately employable once they earned a CNA license or cosmetology license. Others were able to identify how they gained a boost of confidence from the intangibles that their experiences gave them such as practical experience and exposure in their chosen fields.

One of the attractions of experiential learning was that it gave participants a taste of the *real world*. Hands-on learning gave young people authentic experiences unlike the artificial ones they might have encountered in school. On the contrary, schools are very much places where young people have to learn to negotiate social interactions and where they encounter a wide diversity of personalities and cultural backgrounds. What the data from the current study illustrated is that participants encountered an even wider set of experiences outside of their home high schools that further challenged their social skills and helped them develop and grow more

deeply. Public schools would better serve their clientele by providing them with additional experiences outside of high school. Employment or internships remove young people from the isolation of high school. As Light (2001) discovered in his study of Harvard undergraduates related to their participation in extra-curricular activities like jobs: "More involvement is strongly correlated with higher satisfaction" (p. 26).

Future research

Researchers would add to the body of knowledge by further studying the effects of pre-exposure on job and college confidence as well as studying how earning a license might lead to greater success in the post-secondary world. These are the areas that participants were most inspired by at CTI. Researchers should be focusing on what can be done programmatically and experientially to close the gap caused by the high percentage of college non-completers. It is incumbent on researchers to identify what instructional best practices look like that will shift from "presentation and assimilation to active, collaborative learning" and changing our approach to issuing diplomas from those "certified by seat time and standardized tests to credentials certified by proficiency on competency-based measures" (Dede, 2017, p. 1). Another area of research would be to investigate what characteristics lead some students to successfully complete college degrees and others to not complete college degrees. Researchers would add valuable knowledge to the literature by studying which colleges are finding success in retaining higher percentages of their enrollees and at the same time what they are looking for in their new enrollees. It is further recommended that research be conducted that assesses the effects of early college and dual-enrollment pilots on confidence, readiness, college enrollment, and college completion. Lastly, it would also be useful to measure the effects of early college and career experiences on graduation and college enrollment.

Conclusion

Sub-finding statement 2 emanated from participant perceptions about their college and career readiness planning that resulted from experiential learning experiences. It is supported by current literature (Edmunds, 2012; Hooker & Brand, 2010; Radcliffe & Bos, 2013). Participants in the current study felt ready for lives in colleges or careers that they faced after high school and credited these feelings of readiness to the planning that emanated from their CTI experience. Participants identified only sporadic formal activities related to college and career planning but credited the fact that they had a program focus as the reason they had planned out their trajectories. As stated earlier, the current study elicited four sub-finding statements that emerged from participant responses that fell under the major finding statement. The next section will discuss connections to the literature, implications, recommendations, and future research related to sub-finding statement 3.

Sub-finding Statement 3

Introduction

Sub-finding statement three is more specific about particular skills and dispositions that participants needed to figure out in order to be confident in their new college or career ventures. For example, it was no surprise that participants identified time management and balance as being important to figure out because their new schedules included more discretionary time and independent assignments. Participants also identified social skills as important and they extoled the CTI program as giving them new social experiences. CTI mimicked going to college to some degree because it took participants out of their familiar home high school and placed them in a program with a diversity of students from throughout Dutchess County. This forced participants to make friends and develop a social acumen that several confessed was previously a

weak area for them. Participants recognized that they would need to know how to relate socially to co-workers, college classmates, and the general public if they were going to be successful in their new existences. This section discusses the literature connections, implications, recommendations, and future research that relate to the third sub-finding statement, Participants perceived that they developed valuable work dispositions that were applicable to college and career experiences like social skills, time management, and an ability to make friends. Table 15 lists the major literature reviewed in this section related to skills and dispositions.

Table 15

Sub-finding Statement 3 Literature

Sub-Finding	Related Lit	Recommendations	Future Research
Participants perceived that they developed valuable work dispositions that were applicable to college and career experiences like social skills, time management, and an ability to make friends.	Greenberg and Nilssen (2015), Experiential learning fosters collaboration and collaboration promotes active participation and ownership.	Foster collaboration skills through regular experiential learning activities.	Test the results of the survey by establishing the statistical relationship between experiential learning and collaboration skills.
	Carnavale and Rose (2015), Entry level skills are important for workers who are entering workforce to have but they also need to have a lifelong learning value.	Establish goals that lead high school students to an ethic of lifelong learning by giving them choice, autonomy, and purpose.	Explore best practices in education that foster independence and lifelong learning.
	Light (2001), Beginning college students are challenged by time management and balance but benefit from involvement in extra-curricular activities.	Incorporate opportunities for high school students to learn about time management and apply it in authentic ways.	Establish the correlation between high school student involvement in jobs and activities and their readiness to manage their time in college and careers.

(continued)

Table 15

Sub-finding Statement 3 Literature

Sub-Finding	Related Literature	Recommendations	Future Research
	Byrd and MacDonald (2005), Time management is a soft skill that beginning college students need to be successful at college.	Identify places where soft skills can be developed and nurtured in high school students to enhance their readiness.	Assess the extent to which high schools are teaching time management and evaluate programs that are doing so.
	ConnectEd: The California Center for College and Career (2012), There are productive non-cognitive behaviors and dispositions that are necessary for success in both college and careers	Foster the development of soft skills by incorporating them into the academic curriculum and by giving students authentic work opportunities.	Survey teachers to ascertain their awareness of non-cognitive skills and the extent to which they incorporate them into the academic curriculum.

Connections to literature

Participants recognized that the skills and dispositions that they were learning to apply in internships, work experiences, and in CTI coursework helped them to be ready for what they faced in their post-secondary settings. Accordingly, "productive behaviors and dispositions" are identified in the ConnectEd (2012) framework which emphasized that people entering the workforce needed to have certain non-cognitive skills in order to be successful. Participants in the current study found the most challenging aspect of their new independent lives was finding balance and managing time effectively. Time management was also a theme identified by participants in the Byrd and MacDonald (2005) phenomenological study. Again, it was unclear whether this was intentionally part of the curriculum at CTI in every area. Some participants

found that they learned time management because they actually had jobs during high school and had to manage school and work as a result; but this was independent of CTI and participants had to learn this skill independently through trial and error. One participant suggested that her CTI program of study actually had students thinking about managing their time and planning out their career pathways which is appropriate considering Light (2001) who reported that "when seniors are asked what advice they would offer new arrivals, this idea of learning to manage time is a common response" (p. 25). It makes sense that young people struggle in the transition from high school to college or working lives because they are moving from a highly regulated and structured schedule to one that is largely self-regulated and discretionary which may explain why time management emerged as a theme in the current study. There are soft skills necessary for those entering the workforce and the best way to learn these skills – and for workers to best position themselves for economic prosperity – is by attending college (Carnavale & Rose, 2015). There are soft skills (Greenberg & Nilssen, 2015) that have application in both arenas of college and careers particularly broader skills like the ability to apply knowledge to new situations, persevere in the face of challenges, develop self-direction, and adopt a lifelong learning mindset (Ambrose & Poklop, 2015). These broader skills became a natural consequence of the CTI experience and led to the college and career readiness of participants. Once young people arrived at college, there was still social skill learning that needed to take place. This "psycho-social development" was fostered by experiential learning where participants gained skills in accepting the views of others, communicating with others, and "maintaining interpersonal harmony" (Lin, Lai, Chiu, Hsieh, & Chen, 2016, p. 609). The researcher employed trustworthiness measures as suggested by the literature (Lincoln & Guba, 1985) and claimed to provide, rich, thick description. However, one limitation to the study is that the researchers only

interviewed participants a single time and so there was no opportunity for follow-up questions. Another limitation relates to transferability since the study was conducted at three undergraduate universities in Taiwan. As a result, there might be some question as to the applicability of a different cultural milieu to American university students.

There are productive non-cognitive behaviors and dispositions that are necessary for success in both college and careers. Entry level skills are important for workers who are entering the workforce to have but they also need to have non-cognitive skills such as a value of lifelong learning. Another important work disposition is the ability to collaborate with others. Experiential learning fosters collaboration and collaboration promotes active participation and ownership. Another skill that beginning college students are challenged by is time management and balance. Ironically, Light (2001) discovered that college students benefit from involvement in extra-curricular activities rather than solely focusing on academic pursuits because it helps them learn to manage their time. Lastly, participants frequently shared that they placed importance on developing social skills and that it was important to them to make new friends. Participants reported that they benefitted from exposure to workplace dispositions such as professional interactions with co-workers and interactions with the general public. Learning about social skills was a related disposition that several participants acknowledged that they needed to work on before they arrived at CTI. They had the opportunity to hone their social interaction skills there. At the very least, participants gained social skill experience because they were forced to meet new people from various other schools in the area in a setting away from their home high schools.

Recommendations

Whatever the extent to which individual teachers paid attention to time management training at CTI, it appeared that all participants would have benefitted from the inclusion of some kind of planned instruction about how to manage time effectively. Thus, it is recommended that schools incorporate opportunities for high school students to learn about time management and apply it in authentic ways. In general, schools would be wise to identify places where soft skills like time management might be developed and nurtured in high school students to enhance their readiness. Since participants also identified social skill development as an important aspect of their CTI experience, it would make sense for researchers to explore the value of experiential learning in developing social knowledge. Participants were voluntarily uprooted from familiar surroundings at their home high schools and replanted in a new venue with students from across the county. Thrusting themselves into a new locale and a new learning environment forced participants to step out of their comfort zones and exercise social muscles that they had not encountered before. At the same time, the data reflected that participants' confidence was boosted in their new college experiences or their new jobs because they had gained an understanding of what they were like ahead of time, including the social interaction they encountered. The findings related to the natural development of social skills as a consequence of experiential learning also suggested that schools ought to be incorporating social skill development as part of college and career preparation.

Schools also need to do a better job of fostering collaborative skills through regular experiential learning activities. Accordingly, schools would serve students better by establishing programmatic goals that will help lead high school students to an ethic of lifelong learning by giving them more choice, autonomy, and purpose in their learning experiences. Lastly, schools

should identify places where soft skills can be developed and nurtured in high school students to enhance their readiness. Schools should work towards incorporating soft skills into the academic curriculum and giving students authentic work opportunities where they can practice soft skill application.

Future research

It is recommended that researchers test the results of the Greenberg and Nilssen (2015) survey by establishing the statistical relationship between experiential learning and the important 21st century skill of collaboration. In addition, there is an imperative that students exhibit readiness skills like independence and an ethic of lifelong learning. Researchers would benefit the body of knowledge by exploring best practices in education that foster these non-cognitive skills. Another recommendation for research that is related to skills and dispositions is to establish the correlation between high school student involvement in jobs and activities and their readiness for managing their time in college and careers. At the same time it would be valuable to assess the extent to which high schools are teaching time management and evaluate successful programs that are doing so. Lastly, it is recommended that researchers survey teachers to ascertain their awareness of non-cognitive skills and the extent to which these skills are incorporated into academic curriculums. Discovering the status of non-cognitive skill awareness and the prevalence of soft skill inclusion in the general curriculum might help establish a baseline from which goals can be set for improvement.

Conclusion

Sub-finding statement 3 emanated from participant perceptions about the skills and dispositions that resulted from their experiential learning experiences and it is supported by current literature (Byrd & MacDonald, 2005; Carnavale & Rose, 2015; ConnectEd California

Center for College and Career, 2012; Greenberg & Nilssen, 2015; Light, 2001). Participants in the current study identified skills and dispositions that they felt were needed for success in college and careers especially time management, lifelong learning, work dispositions, and social skills. Their readiness for the soft skills they needed after high school was developed through the experiential learning experiences at CTI. As stated earlier, the current study elicited four sub-finding statements that emerged from participant responses that fell under the major finding statement. The next section will discuss connections to the literature, implications, recommendations, and future research related to sub-finding statement 4.

Sub-finding Statement 4

Introduction

Participants talked positively about their perceptions about controlling their destinies somewhat with choice. They liked the notion of being able to choose their classes, choose their focuses, and choose to be at CTI for half of their day in their junior and senior years. Some felt settled by finally making a choice on a career focus because the uncertainty about it otherwise was unsettling. Learning was also enhanced for participants because they explained that they had teachers and other adults who built relationships with them, gave them a dose of reality about the work world, and overall were supportive in their learning quest. Participants also talked about how CTI gave them better study skills and fostered their readiness for learning at the next level. This section discusses the literature connections, implications, recommendations, and future research that relate to the fourth sub-finding statement, Participants perceived that the non-traditional experiential nature of hands-on learning, coupled with supportive teachers, led to readiness skills such as useful study habits that could be applied to their new college and/or

career settings. Table 16 lists the major literature related to the fourth sub-finding statement about learning.

Table 16

Sub-finding Statement 4 Literature

Sub-Finding	Related Lit	Recommendations	Future Research
Participants perceived that the non-traditional experiential nature of hands-on learning, coupled with supportive teachers, led to readiness skills such as useful study habits that could be applied to their new college and/or career settings.	Barton, Hodara, and Ostler (2015), Students, teachers, and parents believe that personalized learning improves nonacademic skills such as communication and goal setting, long-term planning, motivation, and self-confidence.	Incorporate ways to allow students to personalize their academic mission so as to enhance non-academic skills that will lead to readiness.	Investigate the effect sizes of personalized learning as it relates to readiness skills such as communication, goal-setting, long-term planning, motivation, and self-confidence.
	Domers (2017), Providing students with opportunities to develop programs of study that match their interests, passions, and career goals created relevance for college and career choices.	Establish scheduling practices that allow students to map out a personalized pathway that leads to confident decisions about college and career pathways.	Explore the effects of counseling best practices that give students autonomy and choice and how these impact student career self-efficacy.
	Toshalis (2015), Giving students choice about their programs of study, coursework, and career trajectory leads to ownership of their academic mission.	Build in developmentally appropriate opportunities for students to make decisions about what they would like to study and how to better prepare them for their future.	Investigate the impact of choice on student career self-efficacy relative to students enrolled in experiential learning programs.

(continued)

Table 16

Sub-finding Statement 4 Literature

Sub-Finding	Related Lit	Recommendations	Future Research
	McDonald and Farrell (2012), Student readiness was fostered through participation in an early college program.	Introduce early college program as a possibility for high school students as a means to increase confidence levels.	Assess the effects of an early college pilot on confidence, college enrollment, and college completion.
	Werner (2015), Readiness was developed through a WISE project that included research, reflection, an internship, and a culminating presentation.	Create or adopt programs that promote student readiness to ensure their success after graduation.	Survey superintendents of WISE schools to establish the value of the program and consider its appropriateness in developing 21st century skills.

Connections to the Literature

One way student engagement was manifested in the current study was through student choice and investment in their own programs of study because it gave them a sense of ownership (Barton, Hodara, & Ostler, 2015). Other terms that suggest ownership are "career decision-making" and "career self-efficacy" (DeLorenzo 2000, p. 16). The opportunity to engage in a chosen hands-on learning experience is atypical and available only to a small percentage of students in Dutchess County. However, the findings in the current study were in agreement with the literature (Barton, Hodara, & Ostler, 2015; DeLorenzo, 2000; Toshalis, 2015) concerning how choice gave young people ownership of their pathways. One program that illustrated this concept was the Wise Individualized Senior Experience (WISE) program that emanated from a grassroots effort at Woodland High School in New York's Westchester County in the 1970s.

Werner's (2015) dissertation consisted of a program evaluation of WISE and it was designed specifically to explore qualitatively what effects it elicited on student development. The program featured twelfth grade students conducting research in an area of interest, writing in a reflective journal, participating in a six week internship experience, and presenting a culminating public presentation about their experience. The program led to enhanced student problem-solving, goal-setting, and resiliency (Werner, 2015) – important readiness skills necessary for success in college and career.

Participants were more engaged and more motivated when their teachers devoted energy towards building relationships with them and supporting their learning. It appeared that relationship-building at CTI may have been partly a by-product of the smaller class sizes afforded by the hands-on focus there. Schools like CTI served students well by giving them more opportunities to interact with adults in the working world and in the college world so that they could gain inspiration and a realistic understanding of what work and college was like.

The data reflected that participant learning was also inspired by the perception of having choice, by supportive and influential adults, and by experiencing success in the learning itself. Study skills were certainly needed in post-secondary education but were better taught in the context of one's area of focus rather than as separate, discreet skills (Wingate, 2006). Participant responses suggested that study skills were better learned at CTI because the participants were interested in the subject matter and felt it was relevant to their career focus. The mandate that resulted from participant responses combined with the relevant literature that dates back to Dewey (1938) (discussed in chapter two) magnified the need for educators to make learning authentic so that our students are engaged in and develop ownership of their educational paths.

Recommendations

Public schools should continue to pay attention to the relationship-building factor and foster it by limiting class size and by giving teachers strategies for fostering teacher-to-student relationships. One aspect of the current study that should be of interest to teachers and school leaders concerned how participants felt about their readiness to learn and the factors that led to that perception of readiness. Participants found a new earnestness to their academic missions when they viewed their experiences as choices they made because this sense of choice gave them ownership. Participants also appreciated authenticity both in the realistic approach their teachers used and in the real-worldness of hands-on learning. Therefore, it is recommended that public high school leadership approach the post-secondary readiness of its future graduates with the same earnestness and attention given to improving graduation percentages. Schools need to investigate carefully what their diplomas really mean in terms of readiness.

The application of career pathway choices through a BOCES CTI experience is limited to a relatively small number of high school students in Dutchess County. It would behoove public school districts to incorporate more programs that allow students to personalize their academic mission so as to enhance the non-academic skills that lead to readiness. The simplest way to include personalization is to establish scheduling practices that allow students to map out a personalized pathway that leads to confident decisions about college and career pathways. Teachers should build in developmentally appropriate opportunities for students to make decisions about what they would like to study and consider how to better prepare them for their future. One way to do that programmatically is to explore the appropriateness of programs like W.I.S.E. that can give senior students a foretaste of life after high school and that might improve

transitional readiness. A more complicated plan would be to introduce early college programs as a possibility for high school students as a means to increase confidence levels and earn college credit while in high school.

Future research

More work needs to be done correlating the factors of teacher and other adult support with the development of study skills and other readiness skills for college and for work. One recommendation is that researchers explore the effects of counseling best practices that give students autonomy and choice and how these impact student career self-efficacy. In addition, school communities should investigate programs that provide autonomy and choice such as the WISE program which could be accomplished by surveying superintendents of WISE schools to establish the value of the program and consider its appropriateness in developing 21st century skills. Another related recommendation is to investigate the effect sizes of personalized learning as it relates to readiness skills such as communication, goal-setting, long-term planning, motivation, and self-confidence. Similarly, to coincide with the recent educational thrust concerning perseverance and grit (Duckworth, 2016) it is of interest to the body of knowledge about college and career readiness to explore variables that lead to increased levels of what Lent (2013) calls, "career-life preparedness" that include things such as "career adaptability, resilience, and coping" (p. 2). Lastly, it is recommended that schools experiment with early college programs and that researchers assess the effects of an early college pilot on confidence, college enrollment, and college completion.

Conclusion

Sub-finding statement 4 emanated from participant perceptions about the learning skills that resulted from having choice, supportive teachers and other adult support, practice with study

skills, and the learning itself. Participant learning skills developed from their experiential learning experience and it is supported by current literature (Barton, Hodara, & Ostler, 2015; Domers, 2017; McDonald & Farrell, 2012; Toshalis, 2015). Participants in the current study identified learning skills that they felt were needed for success in college and careers that were facilitated through choice, supportive teachers and other adults, study skills, and the learning itself.

Overall Implications

The purpose of this phenomenological study was to explore the perceptions of recent high school graduates from an experiential learning program about their readiness for college and careers. The researcher produced a rich, thick description of the phenomenon of the college and career readiness that developed from respondent participation in a hands-on learning experience in Dutchess County, New York as a result of extensive transcription analysis. Analysis of the data resulted in a major finding statement that participants perceived a greater sense of readiness due to their hands-on learning experiences than if they had been enrolled exclusively in the more traditional program of study at their home schools. At the same time, four sub-finding statements also emerged through a phenomenological approach and the statements were focused on the areas of exposure, planning, skills/dispositions, and learning. The significance of the findings was discussed as it pertained to related literature, recommendations were made, and future research suggested and researchers and suggestions for additional research were offered.

Limitations of this Study

This qualitative study had several limitations that merit naming. First, the sample was relatively small (n = 10) and may be limited in terms of transferability. While it is always

hazardous to generalize demographics, participants were from schools in the northeastern United States that were mostly suburban or semi-rural and this might also limit the study in terms of transferability. Participants in the study were in their first year of post-secondary life. While it was intentional to ascertain what their perceived struggles and triumphs were in their new settings, their perceptions did not enjoy the benefit of the fermentation that comes over time and after some experience. Lastly, while there were multiple sources of data (e.g., researcher notes, demographic survey, interview transcripts), the major source of data was the interview transcripts. Validity may have been strengthened with additional data sources that would have enabled more strenuous triangulation.

Overall Conclusion

In conclusion, this study explored the perspectives of young people in their first year of post-secondary life – either enrolled in a college program of study, working in the field, or doing both – and how their hands-on learning experiences may have impacted their readiness and ability to transition to the next stage of their lives. Participants were praiseworthy of their experiential learning experiences overall and found them to be a positive contributor to their readiness for post-high school life. Experiential learning holds promise as a way to prepare more high school students for what they will face after high school either in college or career as a supplement to the traditional model. This work may contribute to the overall body of knowledge about college and career readiness that will hopefully influence public school leaders to infuse more experiential learning into their programs of study as a preparedness tool.

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Appendix A – Epoche Journal

September 9, 2017
I echo Steph: Thanks for the nudge, Jody. With school opening this week, it has been NUTS and there has been very little time to work on stuff. I really want to. Just can't get my head above water. Like Erik, I am a few months behind. My good intentions for this summer were not realized unfortunately. Time to bear down and get writing!

My goal for two weeks from today, September 22, is to have drafted 500 words a day for at least 12 of the 14 days, either on chapter 4 or chapter 2.

Pray for me. ;)

I shared with my sister in law (who is a writer) last night that I need to declare war and fire up the writing process somehow. She originally told me about the 500 words a day regimen that she uses to spark the writing flow and swears by it. Even if it is utter crap, just get the text on the page. So, that's what I'm going to do for better or for worse…

August 27, 2017
Had a very helpful conversation with Jody a little over a week ago that helped me to envision and structure the work that is ahead. I have added an additional layer of coding that is almost complete. Lost a lot of time because the family was all home and the resulting chaos was not conducive to quiet study and work. Today everyone has left for the Dutchess County Fair and Kathy graciously suggested that I stay home and do some work since she recognized that that hasn't happened much of late (i.e. thanks to a broken dishwasher then new dishwasher installation, a veggie oil spill in the van that required vacuuming and shampooing last night, etc.).
Jody encouraged me to establish an umbrella finding statement and then follow the structure that has emerged in the coding process and refine the other sub-finding statements that I found. I did that on 8/18, right after out conversation and they look like this:
RQ: What are the perceptions of HS graduates who engaged in experiential learning regarding their readiness for college and careers?

FS: Participants in a hands-on learning experience perceived themselves as being more ready for college and/or careers than if they had remained exclusively in a traditional high school setting.

> **SFS 1:** Participants perceived an enhanced level of readiness as a result of the **EXPOSURE** they encountered that gave them **familiarity** with their focus area that resulted in **confidence** and engendered a sense of **purpose** and self-efficacy.
>
> **SFS 2:** Participants perceived that their hands-on learning experience served as **planning for their career field**, confirmation of **career choices and decisions**, and led to **confidence in career paths**.

SFS 3: Participants perceived that they developed valuable **work dispositions** that were applicable to college and career experiences like **social skills**, **time management**, and an **ability to make friends**.

SFS 4: Participants perceived that the non-traditional experiential nature of hands-on learning, coupled with supportive **teachers**, led to readiness skills such as useful **study habits** that could be applied to their new college and/or career settings.

We agreed that adding pseudonyms would help personalize the data instead of having the participants' codes listed so I spent a little time coming up with pseudonyms and adding them to my coding chart a la Buzzuto. Jody suggested that I may want to also add frequencies to the chart that might give some additional trustworthiness to the process.

August 16, 2017

I managed to get some analysis done during the first week of vacation but almost nothing done the second week. When I got home I was plum exhausted and had to catch up at work and at home and wasn't able to attend to things much. Today I'm feeling better so I was able to do a night session.

I wrote some finding statements based on the open coding chart that I created and have been working with for the past few weeks. It reflects the distillation of codes into the four areas that I wrote about previously. I found the original finding statements to be a little too wordy and convoluted so I worked tonight on boiling them down a little more and I feel like they are better. I'm going to share them with Jody and see what she thinks. It's time now to begin looking for more literature that is specifically about the four key codes and finding statements and I will have to keep careful track of that digging for articles.

August 10, 2017

And there goes ten days. On the downside of a final week of vacation on Cape Cod and trying to position myself for an all-out assault on writing when I get back. Things are going to get hot and heavy at work when I get back so that's going to be a challenge!

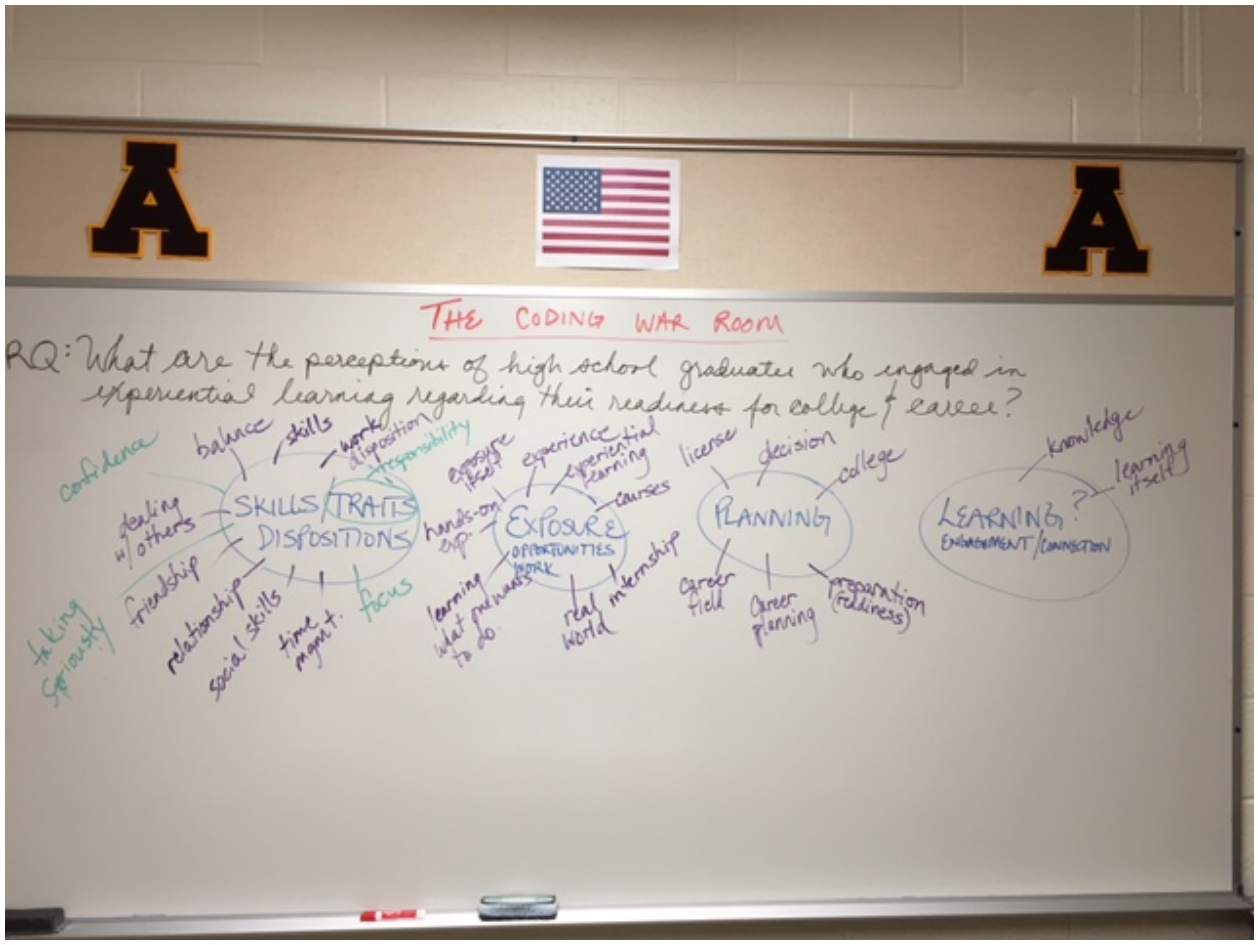
So, I've narrowed it down to around 4 key codes: EXPOSURE, which had the highest average of all the code groups and was also tied for the fifth highest number of codes; COLLEGE/CAREER PLANNING, which had the second highest average and was also tied for fifth on the highest number of codes; I am combining SELF-MANAGEMENT and SKILLS/DISPOSITIONS because it appears that self-management fits well as an actual skill when young people are talking about their readiness. Plus, self-management doesn't appear on the list of highest number of codes whereas skills/dispositions is number one on that list; It makes even more sense to combine CLASSROOM LEARNING with LEARNING because they are simply the same and not highly distinguishable by themselves. Both were fifth and sixth respectively on the highest average list. Learning was seventh (last) on the list of highest number of codes whereas classroom learning was third. The WORK code had a presence on the highest average list but did not appear on the highest number of codes list because it was a small code group and does not seem to have the significance of the others. However, it is probable that it can be combined with

exposure since participants discussed their work experiences as giving them the exposure to workplace mores and dispositions that they otherwise might not have experienced.

August 1, 2017
It's August. Holy crap!
Yesterday I wrote 500 words just to get going on chapter 4. I haven't completely finished identifying themes and finding statements, but for peace of mind I had to get something written. I read Jen Eraca's dissertation to get a sense of how to approach the organization of the chapter and that helped to get started. I still feel the need to apply another layer of coding by using the open coding chart that Jody had us use in 861 (I think). It's a good organization tool and I think it will add trustworthiness to my methodology. I'm feeling good about the way I used frequencies to identify which codes were most important so that I could boil things down. I've reduced the amount of code groups to 4 or 5 and I am identifying which codes from each group had the highest frequencies and then going through the source snippets to see which are most salient. Then I am taking quotes that seem to speak loudest to the coding group and thematic thrust and adding them to the chart. From there it should be easier to move from themes to finding statements. The writing should then come easier, too. The only difficulty will be that I don't have all of my sources with me on vacation to insert methodology citations like Jen did so I'll have to add those later when I'm home. I like the rough goal of 500 words a day so that I'm forced to generate text whether it's bad or good just to keep the words flowing and have some content to work with.

July 30, 2017
Coding memo
In the usual pre-vacation flurry, there were many distractions and things to do like interviewing for job vacancies and following through on that process, cleaning up my office to get ready for summer cleaning, etc. I finally got to the point near the end of the day on Friday where I had to do something to get this coding analysis distilled down to themes. Enough already! So I broke out the dry erase markers and started to do some thinking on the board. I was trying to work out in my mind whether or not I wanted to stick to the 3 cases that I divided the interviews up into, CAREERS - COLLEGE - COLLEGEandCAREERS. I looked at the frequency of codes mentioned in each case in a chart on the whiteboard but did not see any major difference. For example, in the exposure bucket, "experience" was mentioned 17 times in the CAREER case, 9 times in the COLLEGEandCAREER case, and 32 times in the COLLEGE case. It is unclear whether or not the difference between them carries any more meaning except that the researcher noticed more instances at the time of initial coding. Similarly, the code phrase, "real world" was coded 27 times by CAREER case participants, 4 times by COLLEGEandCAREER, and 6 times by COLLEGE participants. This makes sense on the surface because it would appear that participants who are first entering the workforce might be more cognizant of how their high school experiences gave them exposure as to what they would eventually encounter in the workplace, also known as "real world" experiences. The tended to refer to their pre-graduation experiences in the work world as real world because they mimicked what they were now experiencing in the work place. Even though this three-case construction was my own idea before I started coding, I'm not entirely convinced it is necessary to separate out the interviews in this way. While it is plausible that participants in the different cases might have different readiness self-perceptions – that is, participants in the CAREER case and COLLEGE case,

confirmable by those in the COLLEGEandCAREER case – I don't think that it is necessarily imperative that I describe the cases separately. Rather, while a rich, thick description of readiness might be made thicker by discussing how each sub-sample perceived readiness, I don't think it is necessary to present each case separately since truthfully, the overarching case is that of the CTI experience at BOCES. In that vein, one could argue that presenting each different CTI focus as a separate case might be necessary. Let me finalize the emergence of themes before I make that decision because I think the themes and subsequent finding statements might hold the answer to that dilemma.



July 26, 2017
Hi Jody,
Thanks for checking in. I was planning on emailing you tomorrow with an update, but I can do it today instead! ;) I'm getting closer to findings statements. It seems that it is always a slower process that I would like. But, I'm excited about HyperResearch and how it has helped to collect source material by code so that they are all grouped together. That has been huge! So, this week I have been pouring through those and deciding on which of the 17 code buckets I'm going to keep, consolidate, or discard. The report I printed ended up being around 345 pages with participant quotes grouped by code. I am reviewing them in this format and highlighting key phrases once again and anticipating that the bucket (theme) reduction will lead to some statements. It feels like they are on the proverbial tip of my tongue and won't be difficult to

identify. I am working in a large conference room at work where I worked on the interview project I did for 861 because it has a large table space to spread out on and a white board that I can do some thinking on. I reviewed that old assignment and it helped me to think about a layered approach to coding so I created an open code chart (code / description / participant words to help organize things and think through them. I am hoping to have things in pretty good order, code-wise and theme-wise and statement-wise by the time I leave for New Hampshire on Saturday. That way, I can spend my working-vacation time focused on the writing and catching up on some reading to prepare for the full-on lit review chapter. By the way, I've been reading John Dewey's Experience and Education with great interest and have found plenty of great quotes to support, I think, my emerging findings. They are bubbling to the surface slowly but surely.
I'm behind where I wanted to be but I am trudging through steadily, bit by bit. I have on my list of things to do to write an update email to secondary advisors and to send thank you notes to my participants. Hopefully, I'll get to that before I leave for the north country!
Hope all is well with you!
Talk to you soon,
Rich
Richard T. Carroll
2021 House Principal
Arlington High School


July 24, 2017
Now that the coding is really done, it's time to get serious about analysis. This is where keeping my biases in check is important because I have to whittle down the 251 codes I came up with and subsequently categorized into buckets and try to reduce them down further. I made a good start on that today. It just take so much time! HR allows you to print out all of the codes and the text they point to and I have found this to be useful for the longer pieces of text, but not the short one or two word references. It's much easier to remember and pull out themes from the longer passages. I have set up a "coding war room in the conference room next to my office because there are large tables where I can spread out folders and files easily. It also has a dry erase board where I can write notes and organize my thoughts. I spent a lot of time today looking through a frequency report to identify which codes were used most and which groups of codes (buckets) were used most. I copied from the frequency report how many times each code was used, added them up in each of the 17 code groups, and then divided by the number of codes in that group. This doesn't seem very scientific, honestly; it's very rudimentary. But it enabled me to start playing around with the data and getting a sense of what codes were used most frequently and I'm hoping that this will lead me towards identifying some solid themes and accompanying findings statements. HR does a lot of the work for you and lists all of the codes and matching references from the interviews. It's essentially cutting and pasting by interview and now I have to just match similar references from which I think themes will begin emerging. There are 340 pages to go through, so I have my work cut out for me! One of the things that I'm uncertain

about is how I've divided the interviews into groups. I'm not sure if that is going to complicate things or not as opposed to having all of the interviews in one single group. My thinking early on when I made the divisions was that the different groups (career participants, college participants, college and career participants) would give me somewhat different data. We shall see about that… I have had a hard time keeping up with additional reading although I am loving reading John Dewey's seminal work, Education and Experience (or something like that). There are a lot of great quotes to mine from there.

July 19, 2017
With all of the initial coding done on the 26 interview transcripts through HyperResearch, it was time today to take the 251 codes and start boiling them down and consolidating them. I spent the bulk of the day doing this by initially reading through the entire list that I printed out in list form (alphabetically) and assigning symbols to the codes and then associating the codes by repeating the symbol assignments. For example, I placed a simple dot next to "adaptability" and then continued going through the list. I found "ambition" and then later "attitude" and it appeared that these were describing character traits of the participants. So, I created a code group titled "TRAITS" and dumped around 42 codes in that bucket alone. That bucket is clearly important and themes and finding statements will surely come from there. This process of funneling down the codes was time consuming but fruitful. It was satisfying to consolidate the codes because 251 was a lot to deal with and it also put the data back in my head as I considered what code groupings to assign to the codes based loosely on their context and my memory of where they came from. Now my challenge is going to be how to further boil down the code groups because there are too many of them: 17 (including the whole group as one group). Tomorrow I will have to narrow down my code groups and then start to pull the participant language that was associated with each code to identify emergent codes. Meanwhile, I got through to participant CA-2 who agreed to meet me on Friday for the third interview, finally, again. She has blown me off twice so I'm not super confident that she will follow through again. So, I will need to code her interview and add it to the mix after Friday. She was not the best participant in terms of data generation. Answers were kind of all over the place and rather flat. I also remembered that I got CO-3 to at least answer instrument 3 questions through email. She pretty much refused to meet up again in person.
July 16, 2017
Kathy just left for Camp after a week home. Now it's time to get serious and make some progress on this dissertation. I'm ready to hit it hard!

I have been very deliberate about my transcript analysis and I feel like I needed to wait to start writing until I had thoroughly reviewed the transcripts. So, my routine has been to read through each transcript once quickly and underline phrases or words that jumped out at me as having significance to the study. These readings have not been so quick after all and I tended to linger over things a little more than originally envisioned. That's okay, though because any lingering over the data is useful in the long run. After a not-so-quick perusal of each transcript text, I then wrote a narrative summary with the intention to use that summary for member checking. On one occasion, I had my act to reflected in the transcript for CO-4-3. She acknowledged that the summary was on target and had nothing to add. For CA-5, I did not have my act together as much when I interviewed her a third time, so I emailed her the summaries and she corrected me on a quote and one other detail. She was by far the most cooperative and talkative participant of

the bunch. I think our third interview was the longest of the three, actually! That reminds me that I need to write down the length of each of the interviews as this is relevant to my methodology and overall analysis. Following the summary of each transcript - which, by the way, is approached somewhat begrudgingly unconsciously but really does help encapsulate what each participant has said and is not as tedious as anticipated; in fact, the summaries go pretty well because my notations of the original transcripts serve as a guide through them and as talking points about salient things each participant has said; these are somewhat time consuming but a useful and necessary step in my analysis - I then use HyperResearch software to code each transcript. I do this for each participant, one level at a time. So, 1. cursory read of level 1 transcript; 2. Summary of level 1 transcript; 3. Initial coding of level 1 transcript; and so forth with levels 2 and 3. My code book has grown as I have done the initial coding and is now a robust 230 codes so far. I'm feeling driven to go through the code book soon and start grouping codes and identifying emerging themes but I want to finish the process above with all of the transcripts first. Is this sufficient to be called "constant comparison?" We shall see. Anyway, I am close to being on schedule with the initial coding - I had wanted to finish by the end of last week but then family time interfered. Now that I have some focused time ahead in the next two weeks, I endeavor to complete that initial coding, start organizing the codes (including the grouping of codes and the elimination of superfluous codes,etc., and identifying themes. I am feeling that they are starting to rise to the surface. More on that next time. Now that this initial analysis is reaching some closure, I hope to be able to start the writing process and the lit review process simultaneously . . .

May 9, 2017

"Far Afghanistan"

Back home Indiana, we just learn to get along
Civilized and socialized they teach you right from wrong
How to hold your liquor and how to hold your tongue
How to hold a woman or a baby or a gun

But nothing will prepare you for the far Afghanistan
You can listen to their stories and pick up what you can
You listen to their stories maybe read a book or two
Until they send you out there, man you haven't got a clue

Oh the Hindu Kush, the Band-e Amir, the Hazara

They tell you a tradition in the hills of Kandahar
They say young boys are taken to the wilderness out there
Taken to the mountain alone and in the night
If he makes it home alive they teach him how to fight

They fought against the Russians, they fought against the Brits
They fought old Alexander, talking 'bout him ever since
And after 9/11 here comes your Uncle Sam

Another painful lesson in the far Afghanistan

I was ready to be terrified and ready to be mad
I was ready to be homesick, the worst I've ever had
I expected to be hated and insulted to my face
But nothing could prepare me for the beauty of the place

No matter what they tell you all soldiers talk to God
It's a private conversation written in your blood
The enemy's no different, badass holy wind
That crazy bastard talks to God and his God talks back to him
James Taylor

http://www.azlyrics.com/lyrics/jamestaylor/farafghanistan.html

April 17, 2017

As I read through and analyze the interview transcripts that I have so far, it's interesting to note that my code book is getting larger and looming at around 100 codes. Each participant seems to have a slightly different take on college and career readiness and uses slightly different language to talk about it. I suppose that this is a good sign in terms of my remaining open to emergent codes and themes as it indicates that I am not looking for any specific, pre-determined idea of what leads to increased levels of confidence in young people one year out of high school as they try and tackle "the real world" outside of secondary school, either in the workplace or in college study. It's also amazing the contrast between participant notions of what it takes to be successful. Some participants are remarkable driven and know what they want and have a pretty good idea of how they are going to get there. They roll with the challenges that come their way. One participant recognized the importance of having a program like CTI because it felt more adult and had expectations of students that were more serious than what she had encountered in high school. Other participants speak vaguely about how they want to make a name for themselves, want to establish a business or businesses with little or no idea what it would take to do so. They see adults in their ken who are relatively successful operating one or multiple businesses and able to earn a living and seem to think it will just come if they dream it or hope for it. Some participants know that it will take years of college study or training in order to have the acceptable degree that certifies that they are competent in a particular area. One participant seems to be a major contributor to her family's household finances even though she is also attending college. She works multiple jobs in order to make money to attend college and help her mother keep her house afloat.

Clearly, the participants that I have interviewed come from a diverse set of circumstances and backgrounds and each has a unique understanding of readiness relative to their own experiences. This is why it is so important for me to keep an open mind as I pour through their words on the transcripts and identify codes until themes develop. Thus far, I am just developing codes and have not started to boil it down to themes yet. I am feeling like it won't be too difficult to pare it down, though, because there are words that are used to express certain aspects of readiness that are similar. There is a nice feature in HyperResearch that enables the researcher to group codes together in code groups that will help when it comes time to organize. I just had one of our technicians install the HR software on my school desktop so that I can easily print things along

the way. Up until now I have not had the ability to do this. I will just need to be careful to use a memory stick when I'm opening up HR files so that I don't leave any data behind on my desktop and compromise participant confidentiality.

April 13, 2017

As I listen or read through interview transcripts, I am struck by the unrealistic mindset of some of them. CA-2 for example was rebellious in high school (self-professed) and expresses the desire to "make a name for herself" in the next 5 years. She is rather directionless, however. She seems to think that she is going to get into Culinary Institute so that she can learn to be a chef but only wants to do that sort of thing "on the side." Not sure if her parents are independently wealthy or not, but she's in for a rude awakening when she sees how much it costs. She also seems to think that she is going to somehow become an entrepreneur overnight in things like "stocks, homeownership, restaurant management." She makes little mention of training or interning or what it would take to learn about those things and be successful in them. She seems to think that they are just going to happen magically without work or effort.

Anyway, it's important for me to identify these biases and push past them in order for me to see the value of some of the things she said regarding her experience at CTI. She made some good observations about value of that experience in getting her ready for work on the outside. I have to not dwell on any judgments I might make about her when she said she left a restaurant job because "it was like me and the chef didn't vibe right." It certainly seems like she has a lot to learn about developing a working relationship with her boss. Still, her statement might have validity too. Her chef might have been a real jerk. This might be something to explore more in depth at the second interview, if I can get her to respond to my requests.

CA-2 did say some compelling things, too, such as " whatever you think or dream what you can do you ca achieve no matter where you're at." She also seems to recognize (on the surface at least) that one has "Got to be persistent and hard working, pretty much don't get good get better at what you got to do."

Clearly, I have some bias that needs to be bracketed so that it doesn't creep into my analysis. CA-2 has valuable things to say and where she is at is okay right now; it is her developmental stage of her life and work journey, for better or for worse. My job is to cull out the things she discusses that speak to the value of her hands-on learning experience.

March 13, 2017

I read through the transcripts that I have so far. I read them through but without coding them or taking notes which I will do next as I read each one individually, line by line. My initial thoughts are as follows:

I was a little surprised that participants did not identify more areas they are encountering that they are struggling with. Some of the participants recognized that they were more equipped to do hands-on kind of learning as opposed to the kind of classroom learning that involves writing things down. A few respondents were able to articulate that there were some social skills that were necessary to be successful at the workplace and that they developed those skills organically realizing their importance intuitively. The majority of my participants are attending college, a 2-year college, Dutchess Community College, more specifically. Interestingly, most are working and attending college at the same time so I may be able to double-dip in that way. I am lacking in participants who are in the workplace and have encountered difficulty in getting responses from this segment of my sample. They will send back the survey and even the consent but then will

just not respond to my emails or texts. One respondent only provided me with an email address but has yet to respond to any of my emails. She filled out a survey and sent it back. Either the email address is wrong or she is just not interested. Sure wish she would just say either way. One of the realities that I think most respondents are learning is that they need money to live and that they need to work to earn that money. One participant talked a lot about her heavy workload and spoke about the jobs she had with pride that it was a badge of honor to be so busy with work. She explained that she enjoyed playing softball for her college team but had decided to not continue playing because it demanded too much of her time and she found herself going to the library and falling asleep. This particular participant has a high degree of focus and participation in her career field while attending college for nursing. She is currently working in two different facilities as a CNA and it sounds like she is getting a lot of experience in her field doing this. On the surface, I don't feel like I heard a lot that was unexpected. But, I know once I start examining what respondents said that I will be discovering common themes that will emerge.

March 9, 2017 - Seminar WCSU
Meeting with Jody and Dissertation Trio
Keep bracketing alongside reflexive narratives here (or underneath) so that your bracketing is obviated as you go rather than having to read through it all at the end and reflecting on the process after the fact.

March 6, 2017 - 9:30 - 10:00 pm
So, it is about time for me to sit down and obviate what my thinking is regarding the connection between experiential learning and preparedness. My first round of interview transcripts have come in and I want to try to bang out what I have been thinking unconsciously about the benefits of hands-on learning before I get too deep in the analysis of the interview data.

It seems pretty certain to me that students who have a hands-on learning experience benefit from the experience particularly in how prepared they feel about what they face next. I think that students encounter authentic experiences in the so-called "real world" of work when they do internships and apprenticeships that they otherwise would not have had were they to remain solely in a classroom. It seems that hands-on learning experiences like CTI do not necessarily have an internship component, however, so the hands-on aspect is somewhat artificial and a replication of the real world within the classroom. I spoke with a student today who is in the nursing program at CTI and she related that there were two health care facilities where the nursing students are placed. She said that the morning CTI nursing students had an opportunity to earn a CNA (Certified Nursing Assistant) credential. She described truly hands-on learning experiences that she had encountered or will soon encounter in her placement at the Lutheran Care Center. What I need to find out from participants is which programs actually have placements outside of school and which ones do not. I think that the kinds of exposure that students get from encounters with the public (real, live, patients such as the nursing students work with at LCC) are indispensable in developing an understanding of what the job of nursing truly entails. This knowledge and experience can then lead to a confidence that a pure book-learner, classroom-dweller might not possess. Young people like to have expertise in something and then like exerting that expertise by exhibiting their knowledge or teaching others. Being an expert in something can be highly satisfying for young people.

STOP. Ok, I just read Moustakas' chapter 5 in Phenomenological Research Methods and I think I need to take a different approach to my epoche quest. Epoche is kind of a palate-clearing endeavor that prepares the researcher for encountering the data with a fresh, suppositionless point of view so that biases and preconceived notions can be bracketed and set aside so as not to cloud what emerges from the data. So, I need to recognize that I possess biases and presuppositions about college and career readiness and need to effectively set them aside so that I can "The Epoche process inclines me towards receptiveness" (p. 89). So, tomorrow, before I begin to read the transcripts for the first time, I need to clear my head and maintain a complete, unadulterated openness to what is before me and let the data speak for themselves allowing themes to emerge organically. Tomorrow, I'll continue to read Moustakas as he discusses phenomenological reduction in before and in between reading the transcripts that I will be printing in the morning.

January 4, 2017
Was on my to do list yesterday to contact Mitchell but I didn't end up getting to it so I vw to reach out today. I don't want to be a pain in the ass, but I'm anxious to keep things moving forward. I'm feeling uneasy about how little background reading I did over the holiday break and I am thinking that I need to be much more disciplined about keeping a steady diet of reading and writing going as the year proceeds.

Met up with Jonah Schenker at the Duzine sledding hill and mentioned to him that I was on his school's website looking around recently . He spoke passionately about his program, P-tech, and their recent relocation to a college in Kingston (UCCC?). He said I could email him anytime and he would give me a tour of his school. This might be a good connection to make although with the design of my study, it isn't really a good fit since he doesn't have any graduates yet. He did say that some students will be finishing the program much earlier than anticipated. Originally, he projected 6 years for a diploma with an associates degree, but some students are pacing faster and may finish as early as 4.5 years.

February 22, 2017
Yesterday I conducted my first interview! It went shorter than I thought it would (around 30 mins) and it made me think that perhaps my instrument needs refinement and/or I need to ask more clarifying questions to draw out more information. At the same time, the experience was quite pleasant and the participant was helpful and cooperative. She remembered me from when I was her principal at AMS and at the end of the interview while I was thanking her she related that she was happy to do it because she remembered that I had been kind to her brother and wanted to help me in return.

Just finished my last of 4 interviews today. I think one thing I've learned is that it might be a better strategy to space the interviews out more. I was growing a little fatigued by the last one. I'm also a little surprised at how different the lengths of the interviews were. They ranged in lenght from 20 minutes to 42.30. The girls were definitely more talkative than the boys and I generally found it easier to get them to talk. DCC library was a good choice although I don't have student privileges and have to rely on the students to get group study rooms. In the case of this last interview (CO-5-1) there were no study rooms available so we found a nook downstairs in the library and id the interview in the open. I don't think it hindered the respondents' answers

too much if at all but it's possible. He seemed a little nervous in general and it was a challenge to get him to elaborate. He was positive about his hands-on experience at CTI but he is not doing the auto-body work he trained in fearing he would do irreparable damage to someone's car one day. Instead, he's switched his focus to communications technology vying to work at producing in broadcasting. It wasn't clear to me what led him to this new focus and it might be a starting point for follow-up interviews . . .

February 15, 2017
Phone call transcript to set up interviews
Hello _____ . This is Richard Carroll and I'm calling to follow up with you about the survey you sent back about my research study. How are you doing? I would like to set up an interview time with you if you are still willing. Do you have any availability this week or next? [Establish a day and time and place for the interview.] I will be sending you another letter to get your consent as a participant in the study and it will explain what I will be asking of you and how I will ensure your confidentiality. Please bring it with you to our first interview or send it back using the self-addressed, stamped envelope that I'll send with it. Thank you so much for your help and I'm looking forward to talking with you.

February 1, 2017
A near-disaster today with my mailing to CTI grads - I forgot to enclose the survey! I was sick today so I must not have been thinking clearly and I had enlisted the help of some students (as well as secretary Ginny Dunn) to prepare and stuff the envelopes but completely neglected to copy and enclose the survey. I realized it when I got home after having dropped off the 237 letters at the Lagrangeville P.O. It was 4:30 when I got home - closing time!! So, I quickly called and they answered but said I would have to pick the letters up before 5:00 because they weren't allowed to keep letters there overnight. Dilemma! So, knowing Brian Hogaboom was at the wrestling match at the school, I called him and asked if he could pick them up - which he did. Thank God! Recipients would have received a letter and self-addressed, stamped envelope asking for the return of the survey with nothing to return. Diaster! But, disaster averted. Now, I have to figure out how to open the envelopes without too much damage and insert the survey and resend. Will the postage be sufficient? Brian's right: I should have created a checklist to make sure everything was covered.

So, once the mailing goes out, it's a waiting game to see how many responses I get. Mitchell Shron has been receiving back responses from his email campaign and he's encouraged by the response. Hopefully, that will translate into a similar response for me and not survey fatigue. I need a relatively low n-size but I am going to be asking a lot of participants so I hope I get some quality responses!

January 19, 2017
Seminar
Compassion and Creativity - Leadership Conference (Warner Hall)
POSTER!

- 1 PPT slide with all info
- Marcy will show us how next week

Shorten your study name so it's easier to refer to experiential learning
Echo Live scribe eco-pen (not wireless!)
***BACK UP AUDIO RECORDER!!!
*Tricia Stewart has a resource who will transcribe electronically for $.68 a minute.
Tiny scanner
You want your participants to be speaking 95% of the time and you only 5%.

Code first your best interview and then work your way down from thickest description to thinnest

Organizing your data
Trello - storage tool for data
Perrla

January 12, 2017
BOCES Principals' Meeting
CDOS - multiple pathway option of a Regents diploma. CDOS counts as the 5th element towards graduating. Right now it's meaningless because employers don't understand what it means.
Patti Davis - Mid-Hudson Regional Coordinator for CDOS. (transition specialist).
CDOS - Any research been done yet on the credential? Any data on how many credentials have been awarded? Thus far, it has been a valueless credential.
Patti - It's about the skills students will need when they leave high school.
Do any lesson plans you see crosswalk CDOS standards?
Patti is developing a PD experience on CDOS for April. Target audience: anyone who wants to learn.
"Universal skills"
216 hours
Work-based learning activities.
6 credit extension available to be a WBL coordinator.
Diploma is reachable with a 4 + CDOS transcript.
Do WISE programs employ the CDOS credential as part of their program?
SERVE SAFE - industry certification that students attending a school like CIA must have when they walk in. BOCES students are afforded this opportunity
There doesn't seem to be a transparent plan by the state to create a more meaningful understanding of the CDOS credential.
"Advanced Academics" is used by some districts to provide credit-bearing coursework to long-term suspended students.
"Educere" - virtual education
Pine Plains is struggling with how to provide IEP accommodations to long-term suspension.
PLATO is used by some districts
CTLE - distrcits PD plan needs to identify the distrcit as a pprovider in order to ocunt in-house staff development towards PD hours. This is managed through My Learning Plan. BOCES needs to be listed as a vendor/provider to count them. CTLE does not count towards permanent certification.
New seal of bi-literacy on diplomas.

10:00 am - meeting with Mitchell Shron
250 students completed program last year
50 returned surveys sent USPS
Self-reporting data at the end of the year is also available data. It asks for grad plans for students
Consider some kids going to post-secondary training but not college.
Working on email (Google forms) to poll students.
*Any language that you are using, send to Mitchell.
Mitchell has contacts at other BOCES so studenty could be expanded to them for more participants.
*Many kids are doing both working and attending college.
"Journeyman"
Apprenticeships?
28 students attending college returned surveys
9 students pursuing careers
3 military
How will I treat "training" as opposed to college?

10:30 am meeting with Dr. Hooley
Mitchell should write cover letter with my request fo research participants to participate in my survey. Use language such as "please return survey to Richard Carroll attached - or Google form if you're interested in participating in survey.
Write letter for Mitchell's signature (after sharing with Dr. Hooley).
Send to 50 respondent and also access the 150 who didn't. Mail merge to include all grades.
Admin doing grad work.
Value of study.
Cover letter from Mitchell. Send to every graduate.

January 10, 2017
Google chat session with Jody
Jody and dissertation process - semester 2
Download new Blackboard platform.
Lit Review - get started, but the bulk will be this summer.
Lit Review will be easier once you have some data.
Categories of Lit Matrix
USE LIT MATRIX!!!
Chapter 2 is coded; broad categories; organizing principle of chap 2 (see Zarega's table. This is done when lit review is done.)

Draft of chapter 2 by summer to get a pass of the semester.
Audit trail for trustworthiness.
Create a database of participants with their demographics and their code names.

January 5, 2017
I mentioned to Paul Fanuele yesterday my concerns about having to wait on Mitchell Shron for my candidate pool. The exchange reminded me of the importance of touching base with my secondary advisors. Paul remembered that there is a Dutchess County principals' meeting next

week which is hosted by Mitchell over at CTI. He asked me if I wanted to go and suggested that this would be a good opportunity to meet with Mitchell to set something up after the meeting.

Appendix B – Demographic Survey

Hands-on Learning Experience Survey

1. First Name _____
2. Last Name _____
3. Email Address _____
4. Cell phone # _____
5. Mailing address _____
_____
6. Home school district _____
7. Area of focus at BOCES (i.e. culinary arts, nursing, auto, etc.)_____
8. Why did you choose to go to BOCES?

_____
_____.

9. I am enrolled in (check one) ___ 2 year college
___ 4 year college
___ tech training
___workforce
___ military

10. If you are in a tech training program, briefly describe it.

_____
_____.

11. If employed in the workforce, are you employed in the same field that was the focus of your BOCES program?___ yes___ no

12. What did you find beneficial about your BOCES CTI experience?

_____
_____.

13. If you were still in high school, would you do your CTI hands-on learning program again?

_____
_____.

14. What would you change about your CTI hands-on learning experience?

_____
_____.

15. Are you okay with the researcher contacting you for more information?
___ yes
___ no
___ maybe

Thank you for taking the time to fill in this survey!

Appendix C – Interview Instrument 1

Introduction: Hello and thank you for agreeing to speak with me about your experiences at the Career and Technical Institute and what you are currently doing. My name is Richard Carroll and I am a doctoral candidate at Western Connecticut State University in Danbury, Connecticut and as you know, I am doing research about hands-on learning (also known as experiential learning) and how your experience impacted your readiness for college, technical training, and/or the workforce. We will discover together how your hands-on learning experiences may have helped or hindered your readiness through open-ended questions. You may also ask me questions at any time if you wish.

In order to proceed, I will need to have your consent to include you as a participant in the study. Did you bring with you the signed consent form? The consent form explains what I will be asking of you in the study in terms of a time commitment through interviews. It also explains that I will be recording our conversations, transcribing them afterwards, using codes and pseudonyms to preserve your confidentiality, and taking measures to ensure that all of your information is kept confidential. Lastly, I do plan on using the transcriptions for my dissertation and to publish articles but that all references to participants will be made using pseudonyms or codes. The recordings will be destroyed once the transcriptions are made. Did you read the consent form letter? Do you have any questions or concerns about being a participant? Again, I do not anticipate that there are any risks associated with your participation in these interviews and you are free to withdraw from the interviews and the study at any time.

Interview questions:

1. Have you heard of the phenomenon of college and career readiness? What does it mean to you?
2. When you graduated from high school, how ready did you feel to face what was next?

What do you attribute that level of readiness to? Explain how your CTI experience had an impact on the degree to which you felt prepared for what was next.

3. By graduation, what was your plan for what you were doing after high school? How are you currently fulfilling that plan? Where do you see yourself in five years?
4. How did high school prepare you well for life after high school?
5. How might your high school have prepared you better for life after high school?
6. How might high schools facilitate more structured planning for life after high school with its students?
7. What career planning did you engage in while you were in high school? How did your high school experience serve as a gateway to what you did next?
8. What specific suggestions can you make to your high school that you think would improve how well it prepares students for college or career?
9. How might you have benefited from an internship or apprenticeship while you were in high school?
10. If you were employed while you were in high school, what kind of job did you do?
11. How did your high school employment inform or prepare you for the next stage of your life?
12. What were you passionate about in high school?
13. Were these passions or interests the same ones that you still have? What are your passions and interests now?
14. To what extent are you able to explore or employ your passions and interests in your college life or in the work that you do?

15. How might you have benefited from opportunities to explore your passions/interests in high school, perhaps as part of a program?

Thank you for agreeing to participate in this study and for the information that you provided in answering the interview questions. I will be transcribing the interview and studying it and I hope to conduct a follow up interview with you in the next week or so if you agree. A follow up interview will help me delve even deeper into some of the things you discussed with me today.

Appendix D – Interview Instrument 2

1. When you look back on your high school experience, what had the most application to what you are doing now in the workplace or in college?
2. What did you have misgivings about in your work or college study when you first started? Why?
3. What were some things that you found challenging and had to overcome?
4. What did you have confidence about in your work or college study? Why?
5. What about your high school experience prepared you particularly well for what you are doing now?
6. What courses or training do you feel were lacking from your high school experience or you wished you had received?
7. Did you engage in structured reflection activities as part of your hands-on learning program? Unstructured? How did this help (or not) in making sense of your training and preparing you for what you are doing now?
8. I would like you to tell me in your own words how your thinking and planning about your career has evolved or developed over the past five years or so. I would like to begin with an exploration of you telling me about your career goals and plans during your senior year of high school. In other words, what sort of ideas did you have about what you would do for a living in your adult life? How did CTI influence that planning and/or your goals?
9. Have your plans changed, if at all, since that time in your life?
10. Please tell me what you are doing now in your college life / work life. What sort of job do you have? – OR – What does your college or technical training consist of? Describe it.

a. What aspects of your job or college or tech training are you most satisfied with?
b. Which aspects are you least satisfied with?
c. How satisfied are you with your life overall?
d. What has it been like for you to leave high school and move into this phase of your life?
e. To what extent has this transition from high school to college/career/tech training met or failed to meet your expectations? Please elaborate.
f. How did CTI impact your satisfaction with your current life?
g. How did it impact your transition?

11. Where do you picture yourself five years from now?
    a. Are you optimistic about your future opportunities? Please elaborate.
    b. How far ahead into the future do you look? (Three hours? Three weeks? Three months? Three years?)
    c. How did CTI help you to plan out your future?
12. To what extent was CTI helpful to you in choosing your career direction or obtaining your first job or attending college? Please elaborate.
13. What sorts of experiences have helped you to get an idea of who you are – that is what it is you like, what you don't like, what you enjoy?
14. What role did CTI play in helping you establish who you are, what you like, what you don't like, what you enjoy?
15. What would have helped you to ease the transition from high school to what you're currently engaged in?

16. Do you have a clear sense of what is expected of you in your current situation and what you need to do to succeed? How did CTI help you to develop an understanding of those expectations? Please elaborate.
17. The next questions will be retrospective in nature and will ask you to look back at your four years in high school.
    a. Describe some areas that you did well in, including certain classes as well as extra-curricular activities (i.e. clubs, sports, student govt, community service – anything that you were involved in outside of the classroom).
    b. Describe some areas that you struggled with including academics and/or outside activities.
    c. To what extent were you looking forward to graduating and starting college or technical training or your first job? How do you feel about that now?
    d. When you looked forward to your college study or tech training or your job, what did you envision? How has what you're doing measured up to your expectations? To what extent have your values about work/college/training shifted since you graduated?
18. Do you have any closing thoughts about how your hands-on learning experience in high school prepared you (or did not prepare you) for everything you faced this year?
19. Do you have any questions for me?

Appendix E – Interview Instrument 3

1. Why is hands-on learning useful for college and/or career readiness?
2. If you could create the ideal high school experience that would lead to the greatest college and/or career readiness what would it look like? What kinds of learning or training would it include?
3. What does it take to be college and/or career ready? What skills, knowledge, and dispositions are essential to have to be ready for college or the workforce?

Appendix F – Inquiry Letter from CTI Principal

January 30, 2017

Dear 2016 CTI Graduate,

Greetings from Dutchess BOCES CTI. We hope that you had a healthy and happy holiday and wish you the best in the New Year!

I am writing on behalf of a colleague of mine who is conducting an interesting research study about the kind of experiential learning you engaged in at CTI and your perceptions about how it did or did not prepare you for what you are now doing. He is hoping to interview graduates from CTI to learn about how ready they felt in their first college/training experience or first career experience.

Enclosed is a letter from Richard Carroll, a doctoral candidate at Western Connecticut State University, who also happens to be a house principal at Arlington High School. The letter invites you to respond to Mr. Carroll if you are willing to participate in the study. I encourage you to do so as I believe there are important things to be learned from CTI graduates themselves about how their experiential learning impacted them once they left high school.

Thank you for your consideration and continued best wishes for you in your post high school pursuits.

Sincerely,

Mitchell Shron
Principal, CTI

Appendix G – Inquiry Letter from Researcher

February 1, 2017

Greetings,

My name is Richard Carroll and I am a house principal at Arlington High School where I have been an administrator for 12 years. I am currently pursuing a doctorate in instructional leadership at Western Connecticut State University. As part of that pursuit, I will be writing a research-based dissertation. My chosen topic is to explore the perceptions of high school graduates who participated in a hands-on learning program such as CTI on their readiness for college or a career following high school.

I would very much like to interview you as part of this study. Recent high school graduate voices seem to be missing from the research about college and career readiness and I hope to fill that gap with your help. I will be offering a small token of my appreciation in the form of a gift card to the graduates who agree to meet with me and to be interviewed.

I will happily travel to where you are located to interview you at your convenience or we can Skype or Google Chat. Of course, stringent measures will be in place to ensure the confidentiality of any personal information, including information gleaned from our interviews.

If you are interested in participating in the study, please fill out the enclosed survey and return it to me using the enclosed self-addressed, stamped envelope by February 15. Or, if you prefer, you can fill out the survey online by going to https://goo.gl/forms/viTkUgjqfid8aRq12. (I can email you this link, too if you just send me an email request.) I appreciate your time and consideration and I truly hope to hear from you.

Sincerely,

Richard T. Carroll
Arlington High School
1157 Route 55
LaGrangeville, NY 12540

OUR MISSION is to empower all students to be self-directed, lifelong learners, who willingly contribute to their community, and lead passionate, purposeful lives.

Cc: Mr. Mitchell Shron, CTI Principal
Dr. Richard Hooley, District Superintendent, Dutchess BOCES

Appendix H - Letter of Consent

Dear CTI Graduate:

I am in a doctoral program at Western Connecticut State University. I am doing doctoral dissertation research about how graduates view how ready they were for the lives they faced after they graduated from high school. In particular, I am interested in exploring your perceptions about how the hands-on learning you experienced in high school may have impacted how prepared you felt to be successful after high school. I would like you to be a part of my study. I am sending you this consent form that indicates that you have agreed to participate in the study. But first, I would like you to know more about my project.

The project is designed to explore their perceptions of how ready recent graduates felt to face their lives after high school. It is hoped that collected data will be analyzed and that they might be used to help us understand how we can improve the way we prepare students for their post-secondary lives. The research process is one that involves a series of interviews designed to understand the phenomenon of post high school readiness. The first interview will be approximately 60 minutes in duration. Follow up interviews will then be conducted and will be no more than 60 minutes. Lastly, you may or may not be included in a final round of interviews that will be 30-45 minutes in duration. So, your total time commitment will not be more than three hours spread out over three meetings.

I will not use your name in the study; I will use numbers to maintain privacy. The interviews will have nothing to do with your status as a graduate of CTI and the findings will be used to write a dissertation and resulting research on college and career readiness without using anything identifiable to you or any other research participants. The data from the study may be used in research reports or conferences.

This research study has been reviewed and approved by Western Connecticut State University's Institutional Review Board. This study is voluntary for all partied involved. Participation or non-participation in this research will have no adverse effect on you in any way. If you do agree to participate, you are free to withdraw from the study at any time. Privacy will be protected. Participant names will be numerically coded for confidentiality. Results will only be reported in a form that does not identify individuals. The researcher has no supervisory relationship with any of the adult participants.

If you agree to participate in the study, please sign the attached statement below, return it to me by January 15, 2017 and keep the attached copy for your records. Thank you!

Richard Carroll, Ed.D Candidate

Instructional Leadership
Western Connecticut State University

I, _____, am a graduate of Dutchess BOCES CTI. I acknowledge that Mr. Carroll has made clear to me the purpose of this research, identified any risks involved, and offered to answer any questions. I voluntarily grant permission to participate.

Printed Name of Participant _____

Signature of Participant _____

Date:_____

Sincerely,

Richard T. Carroll

Jody S. Piro, Ed.D. Associate Professor
Ed.D in Instructional Leadership

Appendix I – Sample Post-Interview Summary

June 26, 2017

Interview CO-3-2 Summary

CO-3 again said a lot about how writing is an important aspect of readiness for her. While she recognizes that CTI helped her write better through a lot of practice, she needed to take the Smart Start pre-college summer class to bring her up to speed on college writing. It was the extra push that helped her perform better on the placement exam.
Another aspect of readiness CO-e emphasized was that of being able to make friends. CTI helped her to step out of her comfort zone by being in a different environment other than HS and forced her to make new friends. CO-3 also identified some challenges inherent in college life like time management, organization, seeking help when she needed it, studying hard, paying attn. in class, and balancing academic life with family life. CO-3 pointed out that while keeping a reflective notebook or journal was useful, "it's nothing like experience."
CO-3 learned at CTI what she did not want to do, that which she went to DTI to study, cosmetology.
Students who worked while at CTI developed a good sense of what the work "feels like."

Appendix J – Participant email member checking

Jul 10

Didi – (CA-5)
to me

It seems very good, very accurate just a little scattered as I assume I made it sound haha. Just the quote is wrong in the second paragraph, the teacher's motto was "Don't decide you can't before you discover that you can" and I think that second quote was more or less something us kids figured out in the room when girls started to drop from class, not exactly a quip.

Other than that I guess I misimplied that CTI gives you a license, it actually just gives you everything you need to pass it. The license itself you get through the state, but when we finish our program we have already met the qualifications for the exam except we need to pay the fees ourselves and get our own physicals. Hours and course completion wise, CTI provided that.

It seems wonderful though!

Appendix K – Code Book

Code	Total
adaptability	2
adult inspiration	6
adult support	23
advancement	12
advantage	5
ambition	7
application of knowledge	6
apprenticeship	3
ask questions	4
asking for help	10
assemblies	1
athletics/sports	5
atmosphere	1
attitude	6
authentic learning	16
background	1
balance	21
be more strict	2
betterment	10
BOCES	13
bridge program	1
business plan	1
career	9
career field	20
career planning	23
career versus hobby	5
case study	1
certification	5
change in attitude	3
change in living environment	3
change in perspective	9
choice	29
class size	3
classroom learning	28
clinicals	1
collaboration	7
college	45
college fair	3

Code	Total
communication	11
community service	6
compensation	22
competence	7
compliance	1
confidence	35
connections	10
conscientiousness	2
cost	15
courage	2
courses	28
coursework	5
customer service	5
dealing with others	23
decision	31
dedication	3
depth	1
desire	5
differences between high school and college	13
difficult	13
direction	10
discipline	8
discretionary time	9
distractions	14
drive	9
education	5
employability	1
employment	19
encouragement	3
engagement	3
enjoyment	20
entrepreneurship	16
essay writing	7
expectations	20
experience	58
experiential learning	45
exploratory course or period	1
exposure itself	56
extracurricular activities	6

Code	Total
failure	5
familiarity	11
family involvement in career	5
family support	8
field trips	4
financial aid	3
focus	25
foot in the door	3
freedom	9
friendship	32
fun	4
fundamentals	0
future	16
gap year	4
getting through high school	9
getting your act together	9
getting your feet wet	2
getting yourself noticed	1
goals	6
good student	5
grace under pressure	3
grades	31
graduates	6
group work	3
growing up	4
growth mindset	2
guest speaker	7
guidance	15
hands-on classes	16
hands-on experience	57
hands-on learner	18
hard work	8
have in common	1
helping others	6
home management	1
homesickness	7
homework	29
honesty	0
hours	4
immersion	2

Code	Total
impatient with pace	4
improvement	4
independence	21
inexperience	2
influence	2
inspiration	2
interest	14
internship	22
interviewing	8
investment	1
job hierarchy	0
job placement	1
journal	11
knowing what one is good at	6
knowledge	20
laid back	0
leadership	13
learning adult things	14
learning environment	10
learning from adults	12
learning from family members	3
learning itself	57
learning what one does not want to do	15
learning what one wants to do	45
license	29
life skills courses	2
make a mental note	1
make a name for yourself	1
make ends meet	3
managing work load	19
math	5
maturity	13
memory/remembering	7
mentoring	4
misgivings	1
money management	17
motivation	17
multitasking	2
note taking	6
notoriety	1

Code	Total
observation	9
offsite location	10
okay to make mistakes	3
open mindedness	6
opportunity	7
organized	8
parents	31
passing a test	3
passion	3
patience	4
paying attention	10
peer learning	0
persistence	12
perspective	3
pick it up	3
portfolio	5
practice	13
pre-college prep class	2
preparation	40
preparedness	2
preparing for the future	19
pressure	6
prioritizing	5
professionalism	11
projects	3
prove them wrong	3
prove yourself	2
public relations	5
public speaking	3
punctuality	18
purpose	4
pushing along	5
readiness	17
readiness for the work world	11
ready	2
real world	37
realization	16
reflection	17
relationship	28
relevance	6

Code	Total
remedial class	2
repetition	3
requirement/requirements	3
research	2
resilience	9
responsibility	30
retention	2
rigor/rigorous	24
routine	2
sacrifice	1
satisfaction	2
saving money	2
schedule	12
science labs	4
security	1
self advocacy	2
self-discipline	5
self-sufficiency	8
self-taught	2
seriousness	2
skills	27
social skills	67
strategy	10
stress management	6
stress/anxiety/worry	22
study skills	8
studying	35
success	6
taking a risk	8
taking seriously	32
teachers	38
teaching to the test	7
teamwork	10
technology	2
temporary	1
tests	24
textbook work	3
time management	42
training	19
transition	15

Code	Total
treated like an adult	6
tutoring	2
uncertainty	24
understanding	6
variety	2
vocation versus work	2
volunteering	7
work disposition	23
work ethic	6
working	39
working in the field	17
working to help family financially	1
workload	18
writing skills	10

Appendix L – Open Coding

Research Question: What are the perceptions of high school graduates who engaged in experiential learning regarding their readiness for college and career?

Open codes for RQ1

Open code	Properties	Examples of participant's words
~~Support~~	~~Parental pushing and support; adult inspiration and modeling~~	~~"They're happy. They're like we see you . . . They say I have my act together" (CO 6-1)~~ ~~"My dad just always told me to go to school, school was important" (CO 3-1).~~
Exposure, Experience, hands-on learning **EXPOSURE**	getting a feel for it; feeling of purpose; familiarity; confidence; leads to readiness;	"I think the hands-on learning itself gives you a lot more feeling of purpose for your learning" (CA 5-3). "prepare for adulthood in like the real world" (CO 5-3). " . . . you're actually doing it per se than just reading about it in a textbook" (CO 7-3).
College and Career Planning **COLLEGE/CAREER PLANNING**	Career field; career planning; college; decision; license; preparation	"BOCES really told me what I wanted to do. BOCES really put a big emphasis on actually what I was doing and how I wanted to connect that to my future" (CO-8-2). "It kind of helped me decide if that's the right career to go in" (CA-4-2). "BOCES actually teaches you a lot and it helps you figure out what you want to do in your path" (CO-4-2). "CTI helped me, well allowed me to know what I wanted to be when I went to college" (CO-7-2). "If I had never heard of BOCES, I probably wouldn't be a CNA" (CO-1-1). "I'm glad I went to BOCES because I basically got my feet wet" (CO-1-2). "I would say they more or less helped you figure out what you wanted to do" (CO-4-2). "You kind of want a little bit of that confidence to walk in somewhere and you want to be able to go in and say I'm licensed in this and I have experience in this" (CA-5-3). "I'm probably going to start working in a salon since I have my license" (CO-3-1).

Open code	Properties	Examples of participant's words
Skills/Traits/Dispositions **SKILLS/DISPOSITIONS**	Balance; time management; work disposition; friendship; ~~dealing with others~~; social skills; confidence	"I work right now and I do school and it just balances out really well" (CO-8-1). "CTI helped me…realize you're going to have to juggle a lot of things" (CO-5-2). "It allowed me to manage my time more wisely, to know what I wanted to do after I finished that course, and where I wanted to go and how long it would take and all that; it helped me to plan it out" (CO-7-2). "having the same attitude and persistence that you have in that subject or job, or whatever, it's you can still show up with anything you do" (CA-2-2). "learning how to move faster, multitasking, learning how to get along" (CA-2-2). "I'll stand up when they come in; I'll greet them" (CA-5-2). "We learned you want to dress for success" (CA-5-2) "it was a good experience for me; it was my first job; I learned how to work; it was kind of a little push for me" (CO-8-1). "You have to interact with many patients and families and you have to learn to talk to them in a certain way or certain manner" (CO-7-2). "I got used to making friends in BOCES so it helped me here" (CO-3-2). "I had more social skills. Like I got more social skills as I was working so I could talk to people better" (CO-4-1). "I learned how to like be more social, I made a lot more friends. I feel like I'm growing up, like I've grown up a lot, like a lot" (CO-3-1).
		"You want to be able to go in and say I'm licensed in this and I have experience in this" (CA-5-3). "I already knew some stuff to like push me on a good start. So, some of the stuff I first learned when I got here I knew a little bit about it already, so it helped me understand it more and make me successful in what I had to do" (CO-8-1). "It like helps you more be ready for college because you already know what is needed" (CO-4-3). "So I kind of knew what I was doing when I went into my new job" (CO-7-2).

Appendix M – Comparative Coding Matrix

Coding Process for Finding of Exposure: Participants' Perceptions of readiness relative to their **exposure** to career-focused experiences

Subfinding	Exposure	Exposure	Experience	Hands-on learning	Hands-on learning
Category code	Exposure itself (56)	Readiness (17); Readiness for the Work World (11)	Learning what one wants to do (45)	Familiarity	Confidence
Instance	Feel for work Didi, Gina, Heidi, June	Readiness Carrie, Gina	Figure out path Fran	Knew how to do it Heidi, Didi	Something you're good at Didi, Becky
Instance	Feel for college Heidi, June, Fran	Readiness for work world Adam, Didi, Heidi, Fran, June	Feeling of purpose Didi, Heidi, Gina, Isaac	Feel comfortable Gina, Carrie	Confidence to feel ready Eileen, Isaac
Instance	Getting my feet wet Gina	Direction June	Told me what I wanted to do June, Carrie	Used to atmosphere Heidi	Social confidence Did, Heidi, Gina
Instance		New experiences Fran	Things you can't get in a book Eileen, Adam, Didi, Isaac, June	Closer to career June	Job seeking confidence Didi, June
Instance			Easier to understand children Fran	Job familiarity Carrie, June	Test taking confidence Didi, Fran

Coding Process for Theme of **College/Career Planning**: Perceptions of Participants relative to their readiness for decision making about career field choice and college major focus

Subfinding	College planning	College planning	Career	Career	Career
Category code	College (45) Decision (31)	Career field (20)	Career planning (23)	Preparation (40)	License (29)
Instance	Helped me know what I wanted to be in college Carrie	Could be a good career for me Isaac,	Right career Adam,	Feel like we had a job Didi,	Showed us process Didi
Instance	What you're going to be doing Becky	Didn't want to make it a career Isaac,	Put a push onto my career June	Connect that to my future June, Gina, Isaac	Being confident Didi
Instance	They don't really think about what for Didi	Was in that major June	Figure out your path Fran	Learn more about my career June	Wanted to get my license Heidi
Instance	A good option Isaac	General idea of what I wanted to do Gina	The reason you're there Gina	Resumes; Job applications Adam	CNA license Heidi, Gina
Instance	Going to have to juggle a lot of things Isaac	The path is hard and long Gina	What you really wanted to do June, Gina, Becky	Think about the future Heidi	Cosmetology license Becky
Instance	Knew I had to go to college Gina, Becky		Become more in touch with their career Carrie	Helped me plan it out Carrie	

Coding Process for Finding of Skills and Dispositions: Participants' Perceptions of readiness relative to the **skills and dispositions** needed in college and career

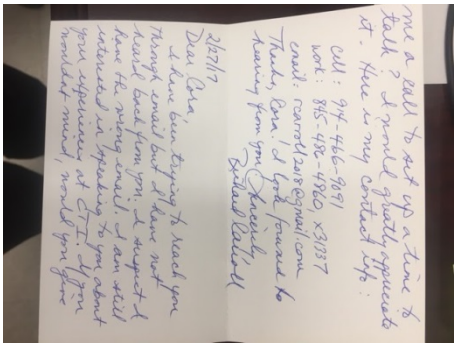
Subfinding	Skills	Skills	Skills	Dispositions	Dispositions
Category code	Balance (21)	Time management (42)	Social skills (67)	Social skills (67)	Work disposition (23)
Instance	Freedom of movement (9) Heidi	Self-discipline (5) Gina	Dealing with others (23) Eileen, Adam, Didi, Heidi, Fran, June, Isaac	Working with others Adam, June, Eileen, Heidi	Self-sufficiency (8) June, Isaac, Becky
Instance	Discretionary time (9) June, Fran, Heidi	Ignoring distractions Gina, Heidi,		Relating to Customers Adam, Didi, Heidi, June, Eileen, Carrie	Communication (11) Eileen, June, Heidi, Carrie, Gina,
Instance	Prioritizing (5) Gina	Time management Adam, Heidi, June, Fran, Isaac, Gina, Becky		H.S. classroom relationships Didi, Heidi, Carrie	Professionalism Didi, Heidi, Carrie, Gina
Instance	Balance (21) June, Isaac, Gina,			Making new friends Heidi, Fran, Carrie	Work Ethic June, Isaac, Carrie
Instance				Talking to people Fran, Heidi, June, Carrie	Punctuality Adam, Didi, Fran, Isaac,

Coding Process for Finding of **Learning**: Participants' Perceptions of readiness relative to their readiness to learn in college and on the job.

Subfinding	Learning	Learning	Learning	Learning	Learning
Category code	Learning itself (57)	Classroom learning (28)	Studying (35)	Homework (29)	Grades (31)
Instance	Confidence Eileen, Didi, Carrie, June	Rather be hands-on Eileen, Adam, Isaac	Avoiding distractions Heidi, June, Gina	Reinforcement Gina	Asking for help Fran,
Instance	Felt like working Didi	Learning by doing Eileen, Didi, Carrie	Study methods June,Carrie, Gina	Homework discipline Didi, Fran	Maintain GPA/grades Gina, Didi,
Instance	Pre-exposure Didi, June, Fran, Carrie, Gina	Engagement Heidi, Gina	Finding a quiet place June	As practice Didi,	Test Anxiety Didi,
Instance	Humor to foster learning Didi	BOCES for setting variety Fran	Studying itself Fran, Heidi, June	Self-imposed Didi,	
Instance	Reflection Heidi	Doing it yourself Carrie	Increase in amount Carrie, Gina,		
Instance	Learning in the workplace Heidi	Okay to make mistakes Gina	Self-discipline Gina		
Instance	Practice Carrie	Professionalism Gina			
Instance	Learning adult things Isaac	Career-based classes Gina			

Appendix N - Reflexive Journal

Date/Time	Description	Comments
January 30, 2017	Email account set up for research communication	Conley (2010) - Where is this article? Set up new gmail account: rcarroll2018@gmail.com so that communication with participants can be kept separate and not mixed in with work email.
January 31, 2017	Mitchell Shron - phone	Simplify letter. Cc: Mitchell, Dr. Hooley His mailing letter with signature and mailing labels; should get here tomorrow or next day. Date letter 2/3, Friday.
February 1, 2017	Sampling work	There are 237 students being mailed letter.
February 6, 2017	Phone contact	Received a phone message from participant CA-4 over the weekend about the inquiry letter and survey. He seemed excited about the project and very willing to participate because his aunt in PA had pursued her doctorate in education and he wanted to help. I called participant back and he said he would send the survey in.
2/22/17, 11:00 am	Interview 2, CO-4-1, DCC library	1. “Act together”; studying; work; on time; asking questions; parents; social skills 2. Hands-on stuff - off-site location; helped watch children; in-class stuff; babysitting; senior project 5. More courses 6. Pushed along; meetings; college course @ hs 11. Personable 12. Sports and early childhood
2/22/17, 12:30 pm	Interview 3, CO-1-1, DCC library	IHOC CNA 2. okay to mess up; how many CNAs at work? 1st year a lot of textbook; what you need to learn Team work
2/22/17, 3:15 pm	Interview 4, CO-5-1, DCC library	2. balance

Date/Time	Description	Comments
2/21/17, 4:30 pm	Interview 1, CO-6-1, Krafted Cup	1. Work load; Online hw and writing 2. Independent Cosmetology 3. College Masters 6. Required life class 9. Being in the workforce; responsibility; money management; time-management
Monday, February 27, 2017, 12:37 pm	Emailed CO-3 to confirm this afternoon's interview at DCC	Concerned about keeping the initial interview fresh after having completed several already. I know I will be able to, but sometimes it feels like there is question fatigue. Reminded CO-3 to bring consent form but will bring a blank just in case.
2/27, 1:20 pm	Sent thank you card and thank you gift card that I forgot about at interviews to CO-1 via USPS	Important to nurture participant relationship so as to increase the chance of a follow up interview. This participant had the highest level of cooperation of all and was very helpful and forthcoming.
2/27, 1:30 pm	Called CA-2 again to try to set up an interview	This participant seems promising but repeated phone calls have not been returned. Discouraging . . .
2/27, 1:54 pm	Wrote letter to CO-2 to see if the respondent will contact me. CO-2 left no phone number and is not responding to email.	

Date/Time	Description	Comments
3/6/17	Transcription printouts	The transcriber that Tricia Stewart told us about turned out to be very reliable, cheap, and FAST. She had two interviews transcribed in less than 48 hours. I did not have time to print them out before my trip to Illinois, so first thing this morning, I printed them out and placed them in the folders in my locked filing cabinet. I think I will photocopy them and keep a clean copy in the folder and use the copy to mark up and begin analysis. These are the two most recent interviews. The initial 5 I sent to transcribe.com just arrived this afternoon so I will print them when I get to school in the morning. This service was slower (7 days) and more costly at $1 a minute versus the $.67 a minute that the new transcriber charges.
3/6/17 9:30 pm	Epoche journal entry	So, it is about time for me to sit down and obviate what my thinking is regarding the connection between experiential learning and preparedness . . .
3/7/17 9:30 am	Downloaded and printed 5 transcriptions received yesterday	I'm looking forward to beginning of analysis now that I have the initial data from the first 7 interviews. Finding a few more participants has proven difficult because I am not getting responses back from participants who returned surveys or consent forms but now are not following through despite repeated phone messages . . .
3/7 10:50 am	Ordered free trial of HyperRESEARCH	Jen Eraca used this software for her dissertation and loved it. She came over to AHS two weeks ago to demonstrate the software for me and now that my data is in, it is time to find something to help me code it.
3/8 12:30 ff	Initial coding of CA-1-1 transcript	Utilized the HyperRESEARCH software to see if it works for me as a coding tool. It looks like it is going to work pretty well and I should get the hang of it quickly enough.
3/8 1:30	Qualitative analysis tutorial	A tutorial popped up automatically that was a nice overview offered by a Swedish academic. It went through the qualitative analysis procedure I am familiar with and was a welcome reminder of how I will be working. Going to start with an quick read through of the transcripts.

Date/Time	Description	Comments
3/10/17, 7:15 pm	Initial readthrough of round 1 of interview transcripts	Before starting my line-by-line analysis of the interview data, I did a read-through of all of the transcripts as a whole.
3/14/17 - 5:00 pm	Closer reading of individual transcripts	Now that I have done an initial read-through of the transcripts from the first round of interviews en toto, I am going to do a closer reading of each transcript individually, line by line to start analyzing what can be found there. I am starting with the interviews I did first so that I will be ready to build on what I found in the second round of interviews that I have begun to set up for this week.
3/14/17 - 5:10 pm	Texted CO-7 to set up interview 1	CO-7 has been difficult to reach but finally returned my texts. I'm working on setting something up for Friday. Hopefully she'll text me back in timely fashion.
3/14/17 - 7:40 pm	Reviewed and revised interview instrument 2	In preparation for the next round of interviews, I reviewed and revised the 2nd instrument adding modified questions from an instrument used by BC professors who did a college-to-career study. I emailed one of the authors and she graciously sent me the questions used in the instrument. While the study's focus was different than mine, it had some questions that were useful to my study.
3/16/17, 8-9:30 pm	Coded CO-4-1	I spent time going through this transcript in preparation for tomorrow's follow up interview. I read through the transcript once quickly, then line by line underlining key words and phrases and then used HyperRESEARCH to begin coding the transcript.
3/16/17, 7:30 pm	Uploaded 2 new transcripts	Today, I interviewed CA-4 for a first interview and interviewed CO-5 for a second time and uploaded the recordings to Dropbox for transcription.

Date/Time	Description	Comments
3/20/17, 8:45 am	Close reading of CO-3-1	Preparing for interview 2 later with CO-3 by reading line by line the first interview.
4/5/17 8:00 am	Reached out to CO-6 and CO-8 to set up and confirm interviews	CO-6 has been difficult to reach. She did respond once a couple of weeks ago, but it takes multiple attempts to get a response. Usually through texting. I also try emailing. CO-8 is a new participant.
4/12/17	Reached out to participants for round 2 interviews	I'm growing increasingly concerned with the lack of response from participants for round 2 interviews . . .
4/17/17 8:00	Reached out to participants for round 2 and 3 interviews	Emails, texts, phone calls
4/17/17 11:00	Reviewed CA-2-1 transcript in preparation for CA-2-2 today	Formulated some questions based on the transcript to CA-2-1. Reviewed instrument 2 to refresh my memory about the questions I will be asking.

Date/Time	Description	Comments
4/17/17 11:45	Reviewed interview instrument 3 in preparation for round 3 of interviews.	Must use the data from the first two rounds of interviews to add to and enhance the questions in interview instrument 3.
4/17/17 4:00 pm	Arrived at the Acropolis Diner to meet a participant, CA-2 for a second level interview.	So far, no show (4:45). She did text me to say she was held up at work and would try to get out as soon as she could. But, it's not looking good and this interview will probably need to be rearranged. I did make good use of the time, though, and answered emails and wrote in my epoche journal.
4/24/17	Worked on CO-3 transcripts today in preparation for CO-3-3	Read through transcripts for a general sense of the participant's ideas about readiness. Then moved on to a line by line coding through Hyper Research.
May 23, 2017	Google scholar search using labels "college and career readiness" + "secondary education" yielding over 3,000 hits. Then did another search: "high school" + "hands on learning" yielding 2, 130 hits.	Limited search to articles since 2016 and it revealed that there is a lot begin written about this phenomenon currently. A perusal of the articles revealed some potential articles but nothing major. Will have to do a more rigorous search through WCSU databases.
May 23, 2017	Diigo research collection and organization tool	I was introduced to a new collaborative research tool at a conference that I think might be better than just the literature collection tool on Excel. The challenge will be transferring all that work from one to the other. Another potential tool might be Google Keep which is a little more self-contained and less collaborative.
June 26, 2017 - 7:45 am	Listened to CO-3-2 on the way to work to review before today's CO-3-3 interview	Some themes are emerging from this interview, particularly about writing preparedness. Participant had to take a remedial summer course before starting college coursework because she did poorly on the placement exam.
6/26/17 - 9:00 am	Worked on organizing and preparing to buckle down on analysis.	Have to be disciplined about the work if I have any hope of getting it done! Must open up the dissertation text I have so far and start adding to it and establish a regular regimen of article reading.

Date/Time	Description	Comments
6/26/17 - 9:10 am	Texted CO-3 to confirm this afternoon's appt. Called other participants who have not returned my texts or calls.	The lack of response is getting frustrating. I may have to just live with what I have and not do the final interview with some of the participants. I think they're done with me!
6/26/17 - 9:35	Reading through CO-3-2	Preparing for today's follow up by reading through transcript and penciling in things and underlining emergent themes.
6/27/17 - 7-10 pm	HyperResearch analysis of C0-3-2	The analysis part of this research is essential but time consuming! Seems daunting how I'm going to boil it down to "findings statements" and/or themes, let alone essence.
6/28/17	Phoned and messaged remaining participants to arrange for final interviews	Some participants continue to be elusive and it's exasperating! CO-8 has come through for tomorrow, however! Yeah! CO-3 was a near miss yesterday but got caught up at work.
7/16/17 - 11:00 am	Started reading John Dewey's Experience & Education.	I think it's important to read from one of the original philosophers of American education about the underpinnings of experiential learning because so many writers refer to him and his ideas seem so logical and straightforward.
7/16/17 7:30 am	Epoche journal entry	It has been a while since I last made an entry in my epoche journal and I spoke about bracketing with the students in Jody's class on Friday. So, this was a reminder of the importance of doing this and obviating my biases and my rationale for the way I'm conducting my analysis. I vow to do this in a more disciplined way from this point forward.
7/16/17 11:30 am	Summarizing CO-1-2	I have done a whole bunch of analysis that has not been recorded here unfortunately. However, I journaled about what that process looks like and how it has unfolded in this morning's entry. It's frustrating that CO-1 has not responded to any of my emails, texts, or phone calls. I suspect that something might be wrong because phone calls go right to vm and she was at least responding in the past.

Date/Time	Description	Comments
Week of 7/24/17	Coding wrap up and analysis	Finally finished coding some transcripts that I thought I had done but did not. Printed out reports through HyperResearch that are awesome! It groups together source material (aka quotes) from participants by code eliminating a collection step that surely would have been immensely time consuming.
Weds., 7/26/17	Update email to secondary advisors	Jody suggested that we send a brief update to secondary advisors so that they know that we haven't fallen off the edge of the earth. I composed an email and sent it to her for review.
Week of 7/31/17	Coding distillation continues – THEMES	Trying to muddle through theme identification while on vacation. So hard to filter out the distractions. I feel like my subjects who talked about the distraction factor while trying to figure out college and workload balance! Got a much needed respite today, though, because my cousin cancelled a social visit that was bound to take up most of the day today (7/31). Bonus! Kathy asked me how many hours I predicted I would need to finish this beast of a dissertation and I said hundreds. Hard to quantify! "Well, are you halfway done? More than halfway? How do I know how much time you'll need?" How do I answer that?
8/10/17	Themes	Vacation week has been difficult to find time to focus for any length of time. I chipped away at the distillation finalization when I could and I'm poised now to identify findings statements.

Appendix O – Member Checking Samples

Gmail **Rich Carroll >**

interview summaries
3 messages

Rich Carroll Sat, Jul 8, 2017 at 5:55 PM
To: [redacted]

Hi [redacted]!

I hope all is well with you and that you had a great Fourth last week!

I wrote summaries of our interviews. If you are able, take a look and see if I accurately summarized what we discussed. In the research world, this is referred to as "member checking." It is a way to validate my research.

Thanks and hope you're enjoying summer!

Sincerely,

Rich Carroll

CA-5-1
The focus at CTI was primarily to pass the state boards. When she started working she realized that much of what she learned was just to pass the Boards and didn't really have applicability on the job. She was able to amass 1000 hours towards her license, a requirement for cosmetology. They prepped students at CTI with packets that showed students what they would need to know to pass the Boards. Not being a very social person, she first kind of laid low and didn't really socialize, but in the second year that changed. She said that the CTI experience was probably different for students who came from different sized schools and she probably was more comfortable at first because of the relatively small size of classes. What she did find that was that at CTI students were treated more like adults than at high school. There were more opportunities for her to learn by doing because the classroom environment "felt more like I was working there than I was learning" (144). While the teachers at CTI gave students traditional assignments, they also had to perform classroom functions/jobs that gave them responsibility and "that just made it feel more like again we actually had a job instead of learning for the job" (176-177). She applied for college just because her mom wanted her to but when she got sick and then was busy with work and couldn't afford the licensing test, things got pushed aside. She made a deal with her mom that if she got her license she wouldn't need to go back to college. She didn't really take school seriously until she went to CTI because they required that you maintain good grades at home school. She started to do a 16 week internship until she realized it was not required and so

she abandoned it. At the same time, she was out in the work world, first as a waitress and then in a hair salon. She expressed frustration with regular high school because of its focus on silly rules and its tendency to baby students too much. She was impatient with the tendency of teachers to slow things down too much for students who asked a lot of questions or who were not getting it. She started to feel the importance of responsibility and punctuality when she was working where she also learned a lot about social interaction. Overall, she realized from working that "you learn a lot more of that actually doing it than you do learning about it" (332). She has experimented with being an

entrepreneur trying to sell things she makes. One of her passions is learning languages and she had some early exposure accidentally when she turned the Spanish option on a video game. Then in classroom Spanish, she had a teacher who taught her that when you make something "stupid" or silly it would help students remember it better. She also mentioned the truism that learning a language happens so much more effectively when one is immersed in the culture rather than in the classroom. She also equated effective learning with science labs where there is a natural hands-on component like dissecting frogs or "doing tricks with bunsen burners" (485). She bemoaned the lack of this experiential learning in English classes. She did, however, find an authentic audience by publishing some writing online and received praise and positive feedback (and a readership).

CA-5-2
High school taught her to filter out what isn't important and focus on things that are important. There was very little that had real world application past basic math and basic English. This idea transferred to her work as a hairdresser because social skills and customer service demand that one remembers one or two things about customers so that the next time there are conversation points that help build a relationship and keep the customer coming back. This requires a certain balance because one does not want to go too far; one wants to be personable but not too personal. While CTI taught her the trade she was training for, teachers were focused on teaching to the test because "the entire goal is to get you to pass your test" (67-68). Through practice and repetition one learns the skills in order to prepare for Boards. The teacher at CTI was very practical and gave students a large packet with everything students needed to know before they started experiential practicing on manikins. Some skills, like cutting a man's hair, were only briefly covered when a guest speaker came to class and mostly the focus was on passing the test. Much of what she needs on the job she has had to pick up on the job or teach herself through watching YouTube videos or asking co-workers. She is happy that she was able to land an independent contractor position because she expected that she would have to do more of an apprentice/assistant position that was more focused on cleaning up and doing non-technical kinds of tasks. Instead, she has been given a job actually cutting hair and coloring hair where she has had to learn some skills through doing them. She emphasized the importance of building relationships with customers by asking strategic questions but not getting too personal. She has found challenge in customers who walk in who do not know exactly what they want and is working towards having the confidence that her boss has built on years of experience and developing an eye for how to give customers what they want. She cited an anecdote about her confidence in coloring hair

and that she was able to interpret what a customer wanted and advise her boss. Again, high school developed in her a sense of time management and following a schedule and being punctual. One of the things she wished school had spent more time on was money management and some of the life skills that she learned about back in 6th grade. Largely, she found high school was based solely on teaching to tests: "It's so based on learn it, pass your test, learn it, pass your test, forget it, learn it pass your test and then go over everything one more time before the big test and then you never touch it again" (307-309). She found the reflection activities that she had to complete were a little helpful in making sense of her training. More importantly, her teacher's emphasis on professionalism - professional dress, interview skills, etc., was something she found useful and remembered. She struggled a little to come to terms with her mom's insistence that she go to college when she really didn't want to and when things got in the way (health, job, finances) she was able to convince her mom that obtaining her cosmetology license was sufficient for now. She flirted with teaming up with her dad in the restaurant business but was determined not to be as transient with jobs as her mother has been. She held a job for a long time as a waitress and then eventually landed her current job as a hairdresser and has dreamt of doing something innovative and entrepreneurial in the field such as a traveling salon but found licensing requirements to be an impediment. Satisfaction wise, she is least satisfied with the unpredictability of her hours and compensation because of the nature of her independent contractor status there are some days when she is paid well and others barely anything at all. She wants to be independent but doesn't feel she is ready because she is impulsive and feels uneasy about money management. She feels that she is not academically inclined overall and cited this as a reason why she did not want to go to college, despite her mom's wishes. She took issue with how teachers in general approached the teaching of their courses. She was particularly frustrated with the way teachers would slow courses down to address students who had questions or who did not pick up the material as quickly as herself and found that these teachers did not teach the courses with enough rigor. She found her CTI experience to be a bargain compared to a friend who attended a and paid for a program privately that was rigorous but expensive. She expressed happiness with her current employment even though there are times when she finds it stressful and that it has its ups and downs. She likes the consistency of a regular job and is happy it is something that she wants to do. The biggest personal obstacle she has had to overcome is the fact that she is not naturally a "social butterfly" and has had to learn how to come out of her shell to build relationships with customers and co-workers and has developed more confidence in this area over time especially at work. She regrets that she has college debt and is "on the fence" about returning to college study. She expressed concern about balancing a college class schedule with employment and that her previous job was flexible in that way. While she still feels uneasy about cutting mens' hair, she has gotten better through observation and practice. She cited again that CTI's focus on "what you're going for" was better than high school's preoccupation with teaching to the tests, even though there was some of that at CTI as well. It prepared her to get her license which has enabled her to be employed in her field of interest. She took issue with school's overemphasis on kids going straight to college after high school and that this caused some students to rebel and purposely fail because they preferred to go into the world of work instead. In the end, she found CTI was very focused and gave students an opportunity to pursue a field if interest so long as they were invested in it. She cited her teacher's growth

mindset quips like “you can’t before you discover that you can” that she and two other classmates put on their mortar boards for graduation or “either you want it or you don’t.” She lauded her teacher’s honesty and professionalism and again expressed impatience with teachers who slowed down their teaching for “the one kid [who] can’t get it” (959). CTI was different than regular school because one learns the topics and not “how to play the system” (978-979).

CA-5-3

Hands on learning is beneficial in that it gives learners a sense of purpose and better retention of information. In her experience, CA-5 enjoyed being an active learner in the classes that featured a hands on environment because “we weren’t just sitting there taking notes, we were active participants in the class” (17-18). Further, the fact that learners were invested and interested in their course of study at CTI, they were able to remember things better than if they had been in a more traditional program because “you’re involved, you’re active, you are participating and it just drills it into your head. I can remember a lot more about my CTI experience that I can most of high school because you just remember it better, you remember it clearer, it’s something you want to do, you’re there for it” (24-27). The CTI program in cosmetology covered a broad range of skills and is designed so that students are able to pass the licensing test. So topics like barbering, or cutting men’s hair, is not covered in depth and has to be learned through experience, trial and error, or from other stylists. She felt that in her high school, things were much more impersonal than at CTI and she cited the school’s numbering system for students as one example of that impersonalization. CTI was motivating and affirming to participants because it was a structured program that highlighted skills that students were good at. The fact that it was a program enabled students to really focus; its two year time frame with an end goal of a cosmetology license lent itself to participants taking it seriously and doing the work whereas in high school students are less motivated because it is a requirement and they are told that they have to be there. She took issue with the tendency of schools to overemphasize homework by counting it too much. Since schools are teaching to the tests primarily, if a student does well on the tests she should not be over penalized for not doing homework because she, in the end, learned the material adequately enough to pass the tests. This is particularly unfair for students who have difficult home lives such as having to take care of younger siblings. Ideally, schools should count homework less and provide students with opportunities to explore subjects that they are interested in and provide them with hands on learning experiences within their classes. Teachers should also provide an element of choice for students so as to appeal to different kinds of learners, hands on learners and book learners. She was critical of her local high school for its contradictory practice of on the one hand encouraging students to plan for college but on the other hand treated them like children. At CTI, there was a practical flavor to the English class she took that supported her future work in cosmetology: “For English we did resumes, we did business plans, we did business cards, we did brochures” (404-405). She liked that the work was directly related to her area of focus, cosmetology. She commented on the stress and anxiety some of her fellow students felt about tests. They were high achievers who struggled on tests because they were so anxious, she posited. She felt ready to pursue her cosmetology career because CTI gave her the confidence (and the license!) that she needed to assertively pursue a job. She has subsequently helped her boyfriend to write an effective resume, something she learned at

CTI. Overall, CTI made her feel ready “because it gave you that time of purpose” (551) and while she did encounter her doubts at times about the responsibility of being a licensed practitioner, she aced her licensing exam and walked into her first job with confidence. She bemoaned the homework regimen at her local high school, but by contrast she completed homework for CTI and even completed self-imposed homework, also known as practice, because she wanted to practice doing a skill that she wanted to get better at in a field that she wanted to do. She spoke about the importance of providing students with connections to school and choices and this will engage them more. She found the lack of choices to be debilitating to students in the future and told a story about a friend at college who could not choose what tie to wear.

[redacted] Mon, Jul 10, 2017 at 10:20 PM

To: Rich Carroll

It seems very good, very accurate just a little scattered as I assume I made it sound haha. Just the quote is wrong in the second paragraph, the teacher's motto was "Don't decide you can't before you discover that you can" and I think that second quote was more or less something us kids figured out in the room when girls started to drop from class, not exactly a quip.

Other than that I guess I misimplied that CTI gives you a license, it actually just gives you everything you need to pass it. The license itself you get through the state, but when we finish our program we have already met the qualifications for the exam except we need to pay the fees ourselves and get our own physicals. Hours and course completion wise, CTI provided that.

It seems wonderful though!

Rich Carroll Thu, Jul 13, 2017 at 2:45 PM

To: [redacted]

Thanks so much, [redacted]! (It took me a few days to open this, sorry!) I appreciate your feedback.

Take care,

Rich Carroll

Gmail **Rich Carroll**

member checking
3 messages

Rich Carroll Sun, Jul 23, 2017 at 3:21 PM
To: [redacted]

Hi [redacted]

One aspect of my research is making sure that my interpretation of your words in the interviews is accurate. This is accomplished by having you, the participant, read over my summaries of the interviews, also called "member checking." Would you mind taking a few minutes and reading over my summaries below and letting me know if I am on target and that I have represented what you said accurately?

Thanks again for helping me with my project. I hope you're having a great summer!

Sincerely,

Richard Carroll

CO-5-1
Your understanding of college and career readiness is knowing what one wants to do in the future in college. You changed your mind a few times about a career path and you've now settled on communications in college. While you started college with confidence and looking forward to a more free schedule, you were not prepared for the workload and it caused you to do poorly your first semester. The hardest part was managing the workload and this was worsened for you because of some personal loss. Before the second semester, you regrouped and resigned yourself "to buckle down" and as a result you're doing better. This situation mirrored your CTI experience where in the first year you also struggled balancing some courses you had to take at your home school and at BOCES. Your CTI experience taught you what you did not want to do, your area of focus there, auto body repair. You've decided to pursue communications at DCC. Currently, your communications classes have a hands-on element where students simulate working on a real TV show. At CTI, you had a particular teacher who pulled you aside and taught you things that were relevant to the real world. You did receive guidance from your counselor at high school who helped you look into potential college majors and career choices. Your mother wanted you to go to college because she did not have the chance to because she had children instead. You suggested that high schools should have mandatory meetings with seniors, individual meetings, where faculty talk with them about what they want to do. You recognized that an internship might have given you more hands-on experience. Your CTI experience was a mixture of lecture and hands-on learning. Your first job as a groundskeeper taught you about paychecks and how little one actually sees of one's pay due to taxes. You also learned to work with others and to

communicate with them. Doing autobody at CTI taught you that it wasn't something that you wanted to pursue as a career even though it was a passion because it was too stressful. Your high school helped you plan out your path by taking you and the rest of the senior class on college visits to hear about what they had to offer and this helped you figure out where you wanted to be. You were surprised when you got to college that you had to create your own academic schedule. You had to learn how to juggle the workload and a job but you kept your class schedule fairly light so that you could do this successfully.

CO-5-2

You had some exposure in high school to the communication field (school announcements) and this sparked your interest in that field. You found your ability to organize and your ability to fix things were good matches for this career field so you decided to pursue it in college. Your experience at CTI taught you that "not everyone is going to sugar coat everything for you" meaning that people one works for are not always going to be nice. Past employers may have treated you a little too nicely and it did not teach you a lesson quickly enough such as when you got a tractor stuck multiple times. You mistakenly thought that the workload in college was going to be similar to the workload in high school and you quickly found out it was harder to balance the workload in college. You took too many classes initially (seven!) and it was too much. You did learn about balancing courses while you were at CTI because there was pressure to continue doing well in your classes at your home school or you would not be able to continue at CTI. In general, you found the demands of your CTI courses to be greater than at your high school as evidenced by your struggle in the MST class your first year. Still, you struggled with deadlines and time management in your first year of college despite what you learned at CTI about the importance of keeping to deadlines. You felt confident about being on time because you are typically a punctual person. Another skill that you have developed is that of being organized. In high school early on your were very disorganized, but with the help of a teacher's aid and a teacher, you developed a system and improved. One of the things that helped you was a teacher who taught you practical math because you struggled in math in high school. Rather than continue that struggle, he pulled you aside and taught you very practical math skills and you suggested that this is a better approach. You had to keep logs of your work at CTI but they had very little reflection attached to them. However, you did some minimal reflection writing on your own.

While you enjoy fixing things like doing auto body repair, your fear about making a mistake and upsetting a customer has convinced you that it is not a field you want to pursue as a career. You told a story about windshield repair guys coming to CTI to talk about their company (Safelite) and the benefits of working there but you also found the potential likelihood of making mistakes convinced you it wasn't the field for you. So, you decided to look into other careers and, remembering your exposure to communication, decided to give that a try. You have enjoyed the lab days where you get to practice making mock TV shows. Your CTI experience in auto body and the fear that your teacher created was enough to convince you it was too stressful to pursue as a career. You found a comfortable routine with college in your second semester and you were able to better manage your time and you would get assignments done even if it meant an all-nighter. You are most satisfied with the freedom of choice that college gives you such as what classes you take and how you spend your time. However, you are frustrated with the financial aid requirement that you maintain a

full time schedule because this has created a bit of a financial burden. Even though you were advised not to take 21 credits your first semester, you did so anyway and learned the hard way that it was too much. Now that you are in college, you have made the realization that you are now in the adult world and that "playtime is over" (373). You remember adults telling you that college was "a whole different ball game" (379) than high school and you have found that to be true and that you have to pay more attention to your assignments and when they are due. CTI gave you insight about what it was going to be like being more in the adult world. Your mother is helping you to look into learning about real estate as another career area because she recognizes your penchant for hands-on things. You are confident that if you stay motivated that you will succeed. CTI helped you realize that you enjoy doing hands-on activities like welding and painting cars but only as a hobby and not as a career. You pointed out that it would have served you and other students well if CTI had been a little harder and more rigorous as preparation for the rigor of college. To be successful, one needs to get things done and hand things in on time (489), something you learned at CTI. You had similar anxiety about the firefighting work you do, that you would make a mistake and this might put someone's life in danger. But, you have persisted and practiced on your own and you continue with the help of training. You enjoy the freedom you now have in choosing your classes and this sense of freedom and you recognize the value of a college degree. Overall, you recognize that your hands-on experience at CTI prepared you "for adulthood in like the real world" (578-579) by giving you a "realistic outlook on the world" and realizing that "you're going to have to juggle a lot of things, especially if you're planning on going to college" (579-580).

[redacted] Thu, Jul 27, 2017 at 9:58 AM

To: Rich Carroll

Dear Mr Carroll,

First off I would like to apologize for taking so long to respond, my internet has been down the past few days but I read over your summaries and I feel that you did a spectacular job summarizing my statement and that what you wrote is 100% accurate of my feelings.
[Quoted text hidden]

Rich Carroll Mon, Jul 31, 2017 at 12:50 PM

To: [redacted]

Thanks, [redacted]! Have a great rest of the summer!
Sincerely,
Rich Carroll

Sent from my iPhone
[Quoted text hidden]

Appendix P – Permission Letter District Superintendent

January 1, 2017

Dear Dr. Hooley:

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. This program requires that I design and implement a dissertation research study. The purpose of this letter is to request formal permission from you to access and to interview recent graduates of the CTI program. Through my research, I hope to ascertain the perceptions of graduates of their preparation and readiness for the next stage of their lives after high school. It is hoped, by extension, that this might be informative to all of us in the secondary school domain about how we can facilitate stronger readiness in our students before they leave us.

Interviews will be conducted of recent graduates of Dutchess BOCES, CTI (those who graduated in the previous academic year, in 2016) at a mutually convenient location or via Skype or Google Hangouts to explore their perceptions of preparation and readiness from their experiential learning program relative to their experiences either in college or in the workplace right after high school. The instrumentation being used to gather those perceptions is comprised of a three round interview protocol (initial, follow-up, second follow-up) using questions developed by the researcher and enclosed here for your reference, each lasting approximately 45-60 minutes in length.

This research study has been reviewed and approved by Western Connecticut State University's Institutional Review Board (Protocol #xxxx). Participation or non-participation in this research will have no adverse effect on any participant in any way. Participation in this study is completely voluntary. Participants who do agree to participate, are free to withdraw from the study at any time. Privacy will be protected. Participant names will be numerically coded for confidentiality. Results will only be reported in a form that does not identify individuals. The researcher has no supervisory relationship with any of the adult participants.

Any information obtained through this study will remain completely confidential. If you would like to discuss the study with me or have any questions about it, feel free to contact me via email or phone at (845) 486-4860, ext. 31337.

I wish to thank the administration of Dutchess BOCES for considering this research study pilot using its recent graduates. If you have any questions, please feel free to contact me.

Sincerely,

Richard T. Carroll

Jody S. Piro, EdD

If you agree to have your school district participate in the study, please sign the attached statement below, return it to me by January 15, 2017 and keep the attached copy for your records.
Thank you.

Richard Carroll, EdD Candidate
Instructional Leadership
Western Connecticut State University

I, _____, am the District Superintendent of Dutchess BOCES. I acknowledge that Mr. Carroll has made clear to me the purpose of this research, identified any risks involved, and offered to answer any questions. I agree that the study described above can be conducted with recent BOCES graduates.

_____ _____ _____
please print name signature date

Appendix Q – Permission Letter Principal

January 1, 2017

Dear Mr. Shron:

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. This program requires that I design and implement a dissertation research study. The purpose of this letter is to request formal permission from you to access and to interview recent graduates of the CTI program. Through my research, I hope to ascertain the perceptions of graduates of their preparation and readiness for the next stage of their lives after high school. It is hoped, by extension, that this might be informative to all of us in the secondary school domain about how we can facilitate stronger readiness in our students before they leave us.

Interviews will be conducted of recent graduates of Dutchess BOCES, CTI (those who graduated last year, in 2016) at a mutually convenient location or via telephone to explore their perceptions of preparation and readiness from their experiential learning program relative to their experiences either in college or in the workplace right after high school. The instrumentation being used to gather those perceptions is comprised of three interviews (initial, follow-up, second follow-up) using questions developed by the researcher and enclosed here for your reference.

This research study has been reviewed and approved by Western Connecticut State University's Institutional Review Board (Protocol #xxxx). Participation or non-participation in this research will have no adverse effect on any participant in any way. Participation in this study is completely voluntary. If you do agree to participate, you are free to withdraw from the study at any time. Privacy will be protected. Participant names will be numerically coded for confidentiality. Results will only be reported in a form that does not identify individuals. The researcher has no supervisory relationship with any of the adult participants.

Any information obtained through this study will remain completely confidential. If you would like to discuss the study with me or have any questions about it, feel free to contact me via email or phone at [redacted]

I wish to thank the administration of Dutchess BOCES for considering this research study pilot using its recent graduates. If you have any questions, please feel free to contact me.

Sincerely,

Richard T. Carroll

Jody S. Piro, EdD

If you agree to have your school participate in the study, please sign the attached statement below, return it to me by January 15, 2017 and keep the attached copy for your records.
Thank you.

Richard Carroll, EdD Candidate
Instructional Leadership
Western Connecticut State University

I, _____, am the CTI at Dutchess BOCES. I acknowledge that Mr. Carroll has made clear to me the purpose of this research, identified any risks involved, and offered to answer any questions. I agree that the study described above can be conducted with recent BOCES graduates.

_____ _____ _____
please print name signature date

Appendix R – Interview Summary Sample

Co-8-1 Interview Summary: 6/28/17

Equated readiness to newfound independence where "you rely on yourself." Co-8 pointed out how the field work she did helped her learn about her chosen career. She described this new college experience as "breaking the surface" in terms of doing college. Early exposure to her chosen career gave her confidence ~~to~~ once she was in college because she had a familiarity w/ the subject matter.

One of the skills she learned and practiced ~~to~~ at high school was time management. She has also found focus because she is invested in an area of interest and the college provides her space to study. High school students would benefit from more information about how college is different than HS. Time management is important and finding balance. Preparing a portfolio of pre-college work was one project that had a lot of use when applying for a job or just as an informational experience later. Internship experience helped her get ready for similar experiences in college. Also, ~~f~~ exposure to a special needs family member also provided her with experience and knowledge when confronted w/ a similar population in an internship experience. High school jobs were useful in learning how to work and in developing social skills.

Appendix S – Interview Note Taking Sample

Interview CO-3
2/27/17 3:30 pm, DCC

Hardy

Cosmo.

English - MLA

business -

1. confidence
seek help
Why BOOKS?

2. real world
social

3.

4.

5. writing - public speaking

6. Senior year surveys

8. More electives, classes, docs
MLA format

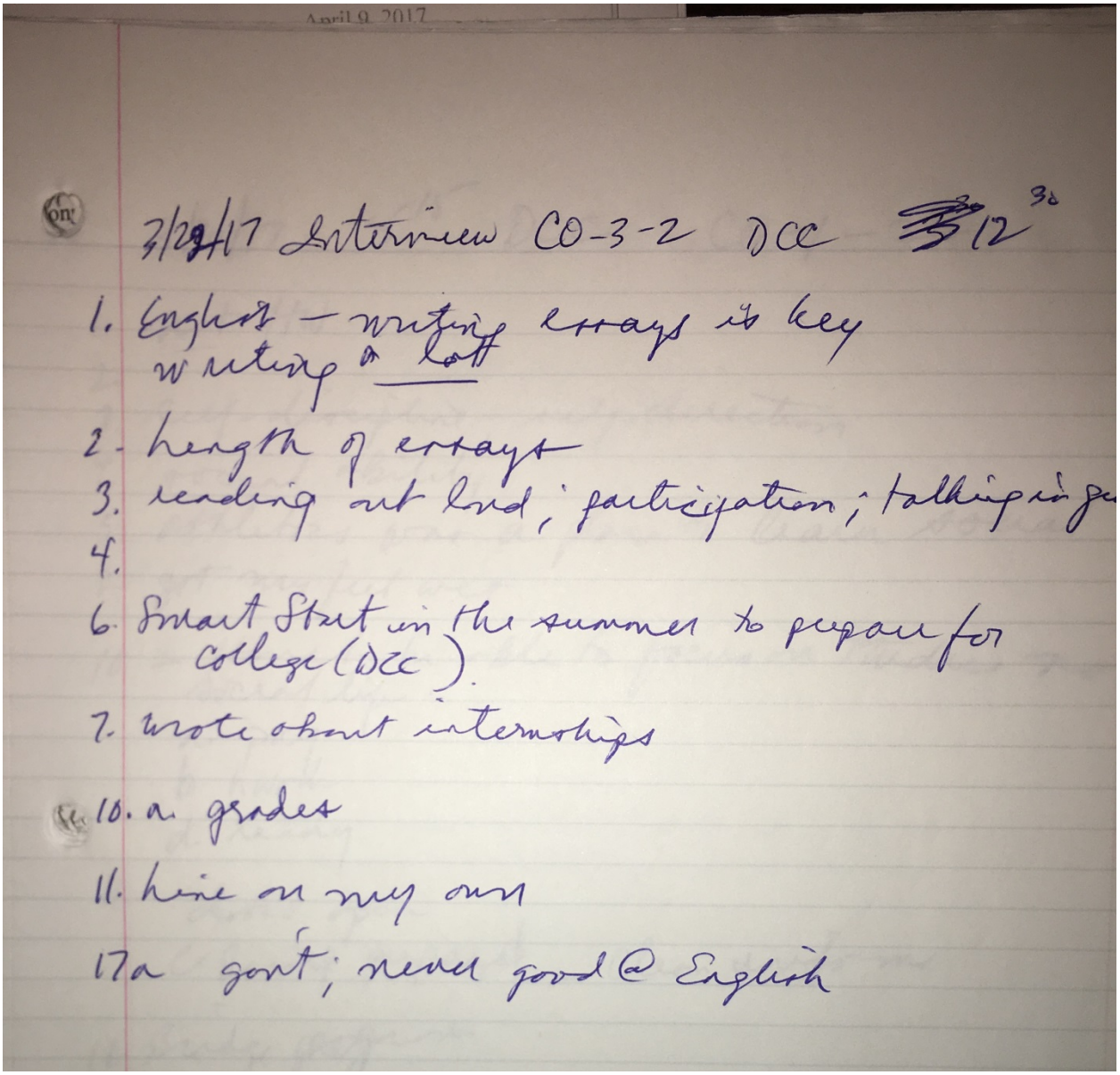
9. notebook
interviews

10.

11. people being nice to you
broad perspec. of life

12.

14 2yr vs 4yr



April 9, 2017

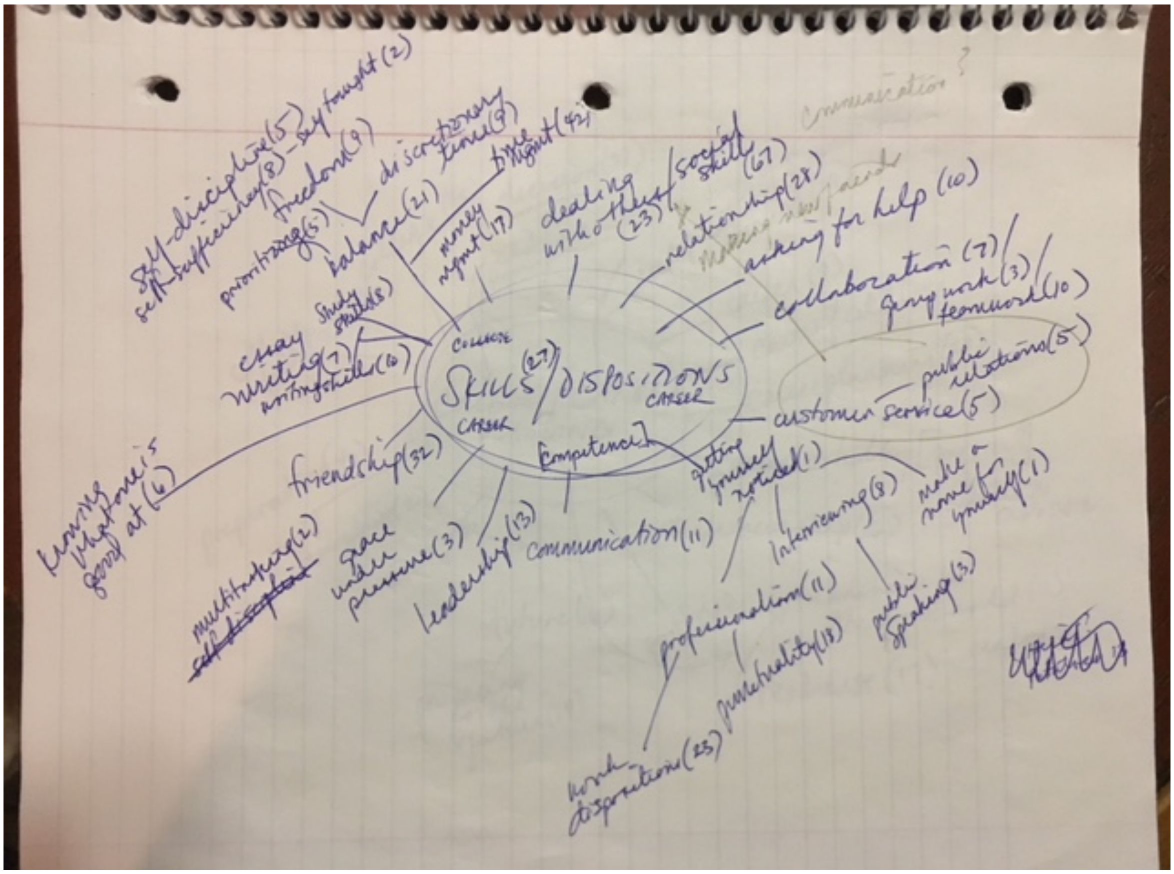
3/29/17 Interview CO-3-2 DCC ~~3~~ 12 30

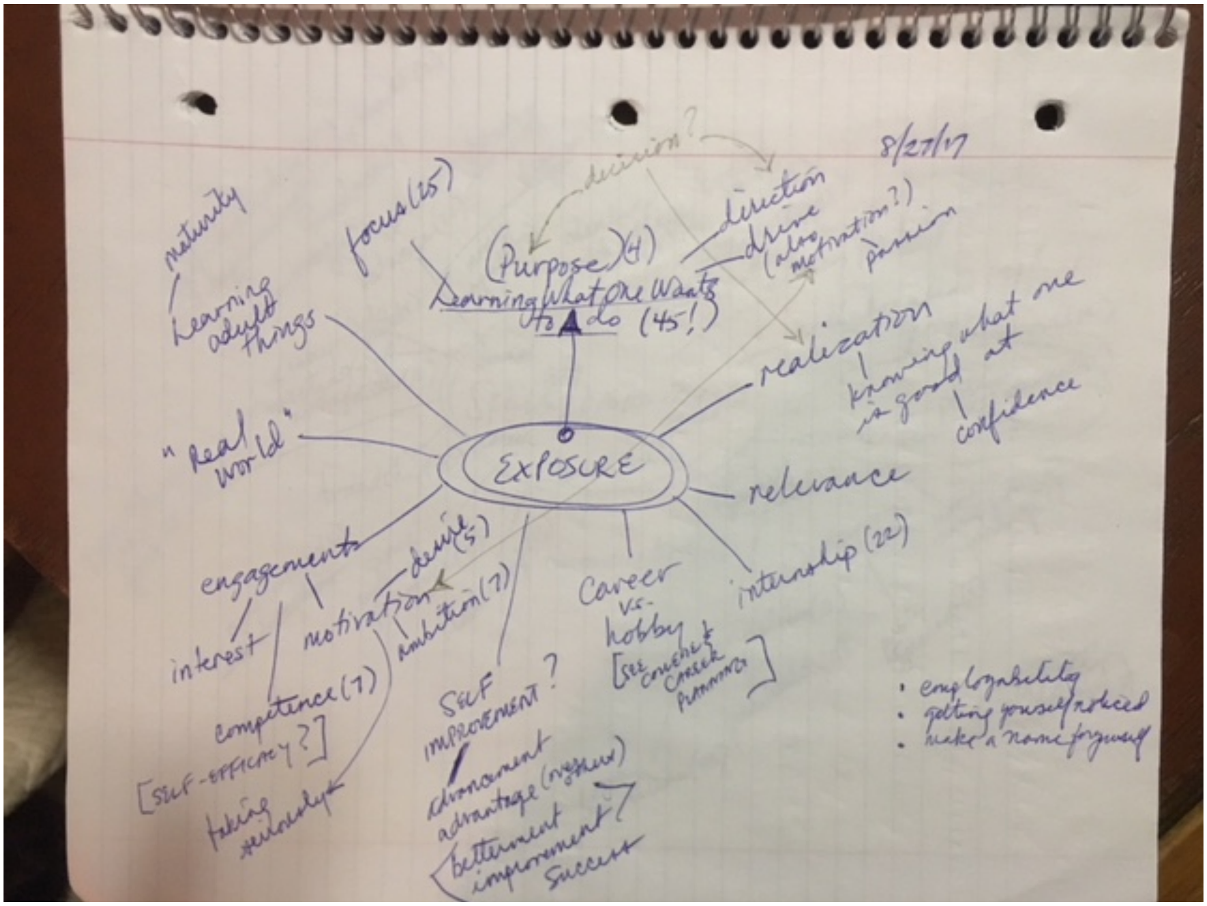
1. English – writing essays is key writing a lot
2. length of essays
3. reading out loud; participation; talking in ge
4.
6. Smart Start in the summer to prepare for college (DCC).
7. wrote about internships
10. a grades
11. here on my own
17a. don't; never good @ English

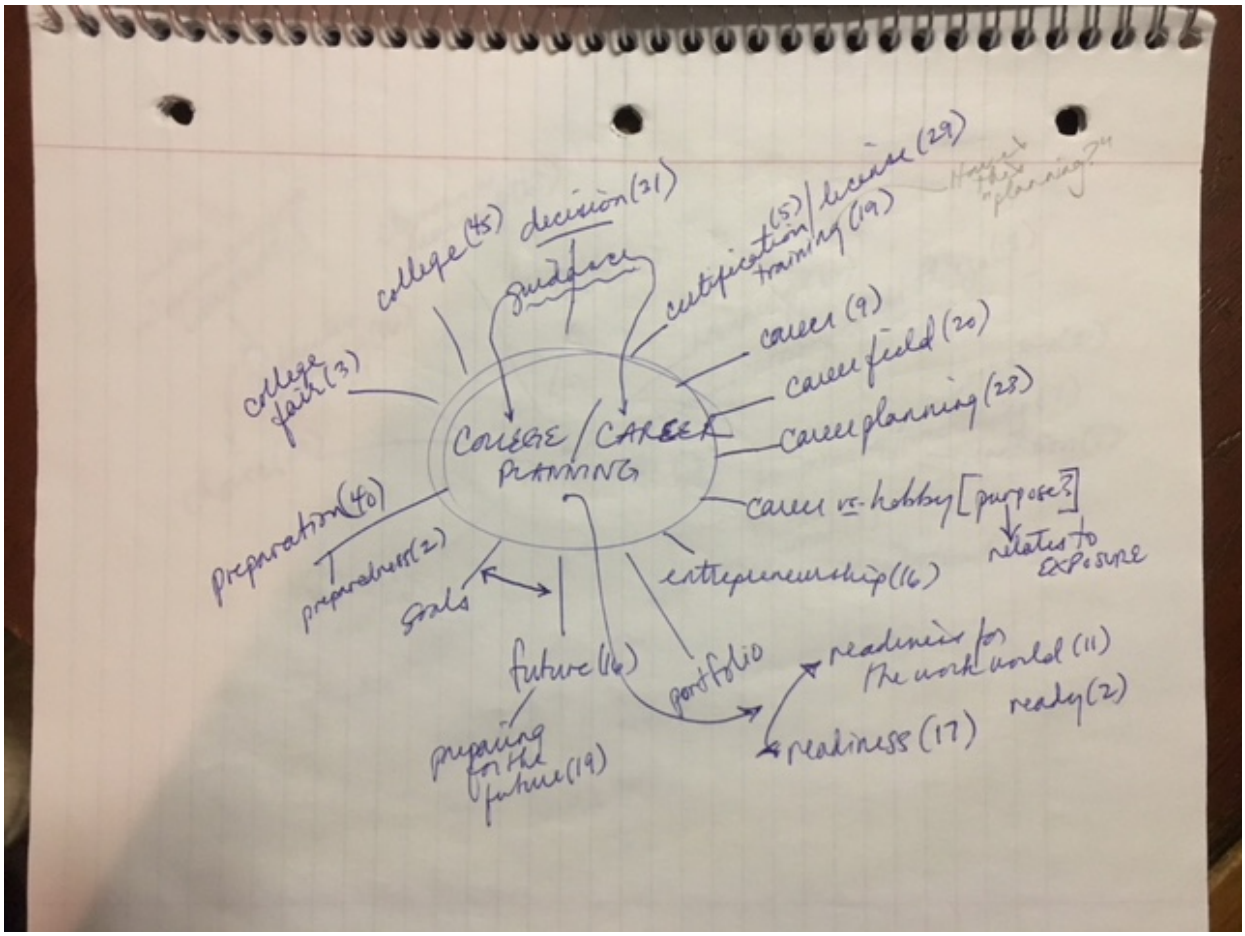
Appendix T – Code Book Groups

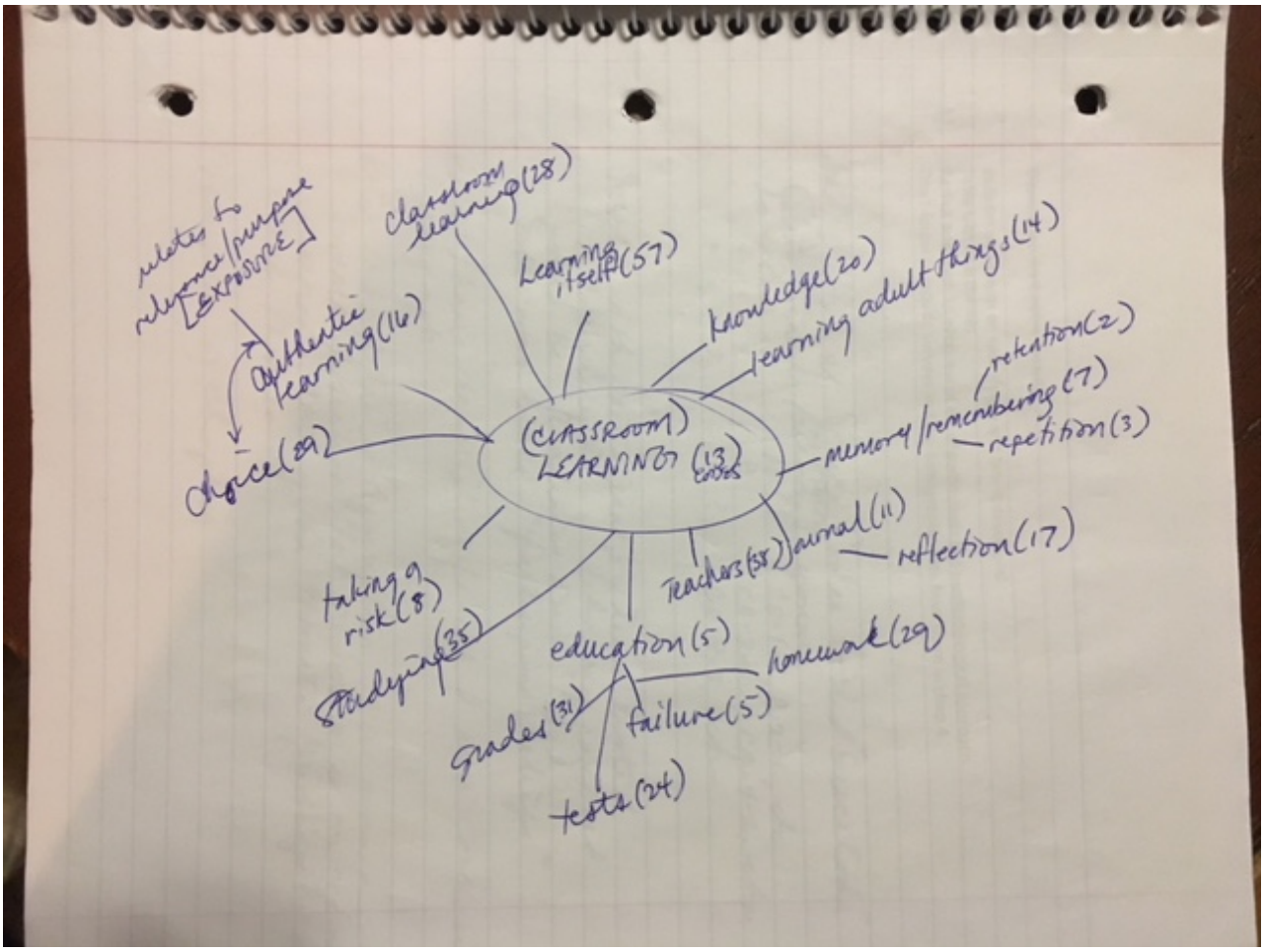
Code Group	# of Codes	Highest Codes	Average	Highest Avgs.
Change	7		7	
Classroom Learning	23	3*	12.65	4*
College/Career Planning	21	4*	15.36	2*
Engagement/Connection	17	6	8.05	
Exposure	21	5*	18.29	1*
Impediments	8		11.25	
Learning	13	7*	11.77	5*
Money	5		9	
Opportunities	9		8.11	
Self-Improvement	8		5.25	
Self-Management	4		13.75	3
Skills/Dispositions	43	1*	11.42	7*
Support	12		8.42	
Traits	41	2	8.96	
Transition Programs	7		5.57	
Work	7		11.71	6

Appendix U – Thematic Mind Maps


SKILLS (27) / DISPOSITIONS
COLLEGE
CAREER
CAREER
self-discipline (5)
self-sufficiency (8)
freedom (9)
prioritizing (5)
discretionary time (9)
balance (21)
time mgmt (42)
money mgmt (17)
dealing with others (23)
social skills (67)
relationship (28)
asking for help (10)
collaboration (7)
group work (3)
teamwork (10)
public relations (5)
customer service (5)
study skills (8)
essay writing (7)
writing skills (10)
knowing what one is good at (6)
friendship (32)
[competence]
getting yourself noticed (1)
make a name for yourself (1)
interviewing (8)
multitasking (2)
grace under pressure (3)
leadership (13)
communication (11)
professionalism (11)
public speaking (3)
punctuality (18)
work dispositions (23)
communication?


8/27/17
decision?
direction
drive
passion
(Purpose)(4)
Learning What One Wants to do (45!)
focus (25)
maturity
Learning adult things
"Real world"
EXPOSURE
realization
knowing what one is good at
confidence
relevance
internship (22)
Career vs. hobby
engagement
interest
motivation
desire (5)
ambition (7)
competence (7)
[SELF-EFFICACY?]
taking seriously
SELF IMPROVEMENT?
advancement
advantage
betterment
improvement
success
• employability
• getting yourself noticed
• make a name for yourself


college (45)
decision (21)
guidance
anticipation (5)
decision (29)
training (19)
career (9)
career field (25)
career planning (23)
career vs. hobby [purposes]
relates to exposure
college fair (3)
COLLEGE / CAREER PLANNING
preparation (40)
preparedness (2)
goals
entrepreneurship (16)
future (16)
portfolio
readiness for the work world (11)
ready (2)
readiness (17)
preparing for the future (19)


relates to
response/purpose
[EXPOSURE]
classroom learning (28)
Learning itself (57)
knowledge (20)
learning adult things (14)
Authentic learning (16)
relation (2)
memory/remembering (7)
repetition (3)
choice (29)
(CLASSROOM) LEARNING (13 codes)
journal (11)
reflection (17)
taking a risk (8)
studying (35)
teachers (58)
education (5)
homework (29)
Grades (31)
failure (5)
tests (24)

Appendix V – Audit Report

Qualitative Audit for Mr. Richard Carroll

An audit of Mr. Richard Carroll's qualitative research study was concluded on February 12, 2018, by Kara Kunst Tanner, Ed. D. Mr. Carroll met with Dr. Tanner to provide an overview of his research study, including the literature review, the phenomenon being studied, the research question, data collection, analysis, conclusions, and acquisition of participants. This involved a particularly detailed explanation of his coding process, organization of data, code tabulation, code density calculations, emergence of code groups, sub-finding statements and the major finding statement, as well as the intricate analysis of all data collected within the study. Dr. Tanner examined and reviewed several documents which included his latest dissertation draft, code-book, epoche journal, reflexive journal, appendices, interview summary field notes, as well as interview transcripts. All coding appeared to be accurate with 100% agreement between the researcher and the auditor.

Mr. Carroll explained his coding process, including the development of open codes, organized by his use of Hyper-Research. Once the open codes were completed, Mr. Carroll tallied the frequency of the open codes, and established code density calculations to establish a frequency average of the codes within the data. Furthermore, Mr. Carroll shared how he collapsed the open codes into code categories and themes. Finally, Mr. Carroll described his process of how the categories and themes led to the sub-finding statements and the major finding statement for the study. It was readily apparent to the auditor that the coding process and the development of categories and themes led to the same conclusions after a review of the data.

The auditor also agreed and encouraged Mr. Carroll to provide participant statements for the major finding statement and sub-finding statements for the study. This will provide an effective

way to express the thoughts and experiences of the high school graduates regarding their perceptions of their college and career readiness. The data acquired from the phenomenological research process allowed for the research question to be answered effectively and efficiently. The conclusions and implications of this study were discussed, and this audit was completed successfully.

[redacted]

Kara Kunst Tanner, Ed. D. 2/28/18

Auditor Date

[redacted]

2/28/18

Richard Carroll

Researcher Date

EdD in Instructional Leadership
Department of Education and Educational Psychology
Dissertation Registration Form

Student Richard T. Carroll, Jr. Date April 30, 2018

Dissertation Title: COLLEGE AND CAREER READINESS: EXPLORING THE PERCEPTIONS OF RECENT HIGH SCHOOL GRADUATES WHO ENGAGED IN EXPERIENTIAL LEARNING

Dissertation Committee Members: See attached Dissertation Approval Page

For Office Use Only.

Jody S. Piro	Jody S. Piro	April 29, 2018
Primary Advisor	Signature	Date
Marcia A. B. Delcourt	Marcia A B Delcourt	May 11, 2018
Program Coordinator	Signature	Date
Maryann Rossi, PhD	Maryann Rossi	5-30-18
Dean, School of Professional Studies	Signature	Date
Christopher A. Shunkle, EdD		5.30.18
Associate Director, Division of Graduate Studies	Signature	Date