

College and Career Readiness through High School Experiential Learning in the United States

*Richard Carroll**, *Jody Sue Piro***

Abstract

This study has explored the perceptions of recent high school graduates in the United States about their levels of preparedness for post-secondary life after they engaged in experiential learning while in high school. A qualitative, phenomenological methodology was utilized whereby data were collected through a three-level interview protocol applied to a sample of participants (n = 10). 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. 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, significant thematic identification, and finally, a significant finding statement with four themes emerged that included experiential learning as a readiness factor, exposure to college and career experiences, college and career planning, skills and dispositions, and learning. Implications and recommendations are offered.

Keywords: *Experiential Learning, College and Career Readiness High School*

JEL Classification: *I20, I2*

INTRODUCTION

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 regarding the inadequate 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 for the college experience. To illustrate, the National Center for Education Statistics data (Sparks & Malkus, 2013) indicated that in 2007-2008 approximately 23.3 per cent of first-year undergraduate students attending public institutions reported taking remedial courses (Sparks & Malkus, 2013). The

Correspondence:

**Western Connecticut State University, USA, carrollr@wcsu.edu*

***Professor, Education and Educational Psychology, Western Connecticut State University, USA, jodypiro@gmail.com*

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 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 to pause and demands a rethinking of how high schools prepare students for the next stage of their lives (Bentley University, 2014). 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).

What is missing from the literature on college and career readiness is an understanding of the benefits of experiential learning from recent high school graduates (Esters & Retallick, 2013) who encountered the transition from a career-oriented secondary school experience to a college setting or that of the workplace. It is currently unclear how high school graduates view readiness and what they perceive to be the issues related to their sense of readiness relative to their high school hands-on learning experience (Byrd & Macdonald, 2005).

The purpose of this research was to explore the perceptions and attitudes of young adults in their first year of post-secondary life regarding the phenomenon of readiness emerging from experiential learning in a Career and Technical Institute high school in the U.S. 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.

CONCEPTUAL FRAMEWORK

College and Career Readiness:

Aside from the general discontent often cited in popular media that 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 policymakers. Many students graduating from high school may not be ready for college study but what is even more troubling is that college graduates may face dim prospects for employment when they finish their degrees (Perry & Wallace, 2012) because other skills are necessary for success. 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). Exposure, college and career planning, skills and dispositions and learning are each considered. Figure 1 demonstrates the organization of the literature.

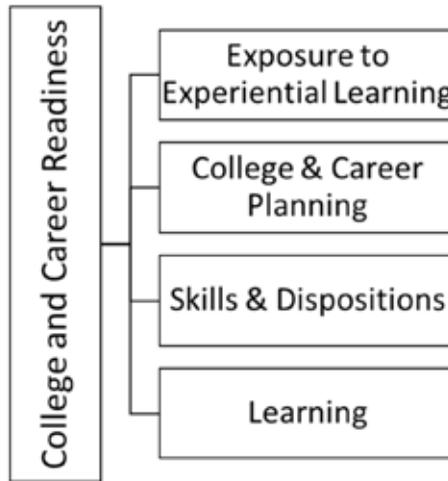


Figure 1: Organization of the Literature

Exposure to Experiential Learning:

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). They 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 (Hart, 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:

Various researchers, (Ewert & Kominski, 2014; Hooker & Brand, 2010; Lent, Ireland, Penn, Morris, & Sappington, 2017; Radcliffe & Bos, 2013), extolled how experiential learning can lead to higher 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).

Skills/Dispositions:

Soft skills (Greenberg & Nilssen, 2015) are widely recognized as being as important

as academic knowledge (Bokan, 2015) and 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).

Learning:

Learning readiness was 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 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 essential 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).

The literature included sections on exposure to college and career through experiential learning, college and career planning, and skills and dispositions as they related to soft skills as part of readiness for college and career. The following section addresses the method of the study.

METHODOLOGY

Research Design:

The research question was: What are the perceptions of high school graduates who engaged in experiential learning regarding their readiness for college and career? The research was conducted using a phenomenological emergent design whereby phenomenological reduction led to the essence of the phenomenon of college and career readiness. A qualitative approach using 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 interview data were subsequently coded and analyzed using a constant comparison, emergent analysis to synthesize the data. 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 was used. 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. Presuppositions and biases were bracketed through epoche journaling, and potential meanings were explored through imaginative variation and horizontalization (Moustakas, 1994).

Setting:

The participants were 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 in the state of New York, United States, and it is a program offered by the Dutchess County Board of Cooperative Educational Services (BOCES). This agency serves 13 school districts in the county and provides a limited number of students with a work-based learning experience in a field or career. For example, students could enrol in programs that focus on Cosmetology, Health Sciences, Early Childhood Education, and so forth.

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 to identify participants who would provide insight about the relationship between experiential learning and readiness for college and career. We 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) established a sample with adequate density.

Since this qualitative research aimed 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 college. With the assistance of the CTI administrator, a pool of potential subjects was identified from which a sample was drawn. A demographic survey was sent to all 237 CTI graduates who were 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.

Participants:

There were 10 participants in the research study (n = 10) whom 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. An overview of the results of the demographic survey can be seen in Table 1, Study Participant Demographics. As

illustrated in Table 1, 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 was working, an indication of whether 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. All participant names are pseudonyms.

Table 1: Study Participant Demographics

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

Data Collection:

Demographic Survey

The researcher-created survey was used to identify a sample of the population (n = 10) that had the highest potential for generating useable data relative to experiential learning as preparation for the post-secondary experience. The participants 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.

Interviews

Initial interviews were conducted between February through June 2017; follow-up semi-structured interviews were conducted with key participants in April through June 2017; final follow-up semi-structured interviews occurred in June 2017.

First Round of Interviews

The Interview Instrument I consisted of a list of 15 researcher-developed questions informed by the literature designed to maximize the collection of data 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). 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 Interview Instrument II added 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 were willing to be interviewed a third time (n = 6) participated in a follow-up, in-depth, interview using Interview Instrument III. This instrument contained fewer questions, a total of three, which were concentrated on the essential essences of the high school experience relative to post-secondary readiness. 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. Data collection ceased 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. Figure 2 demonstrates an illustration of the analysis process from raw data to open codes, to code categories, to themes and the major finding statement with four sub-finding statements.

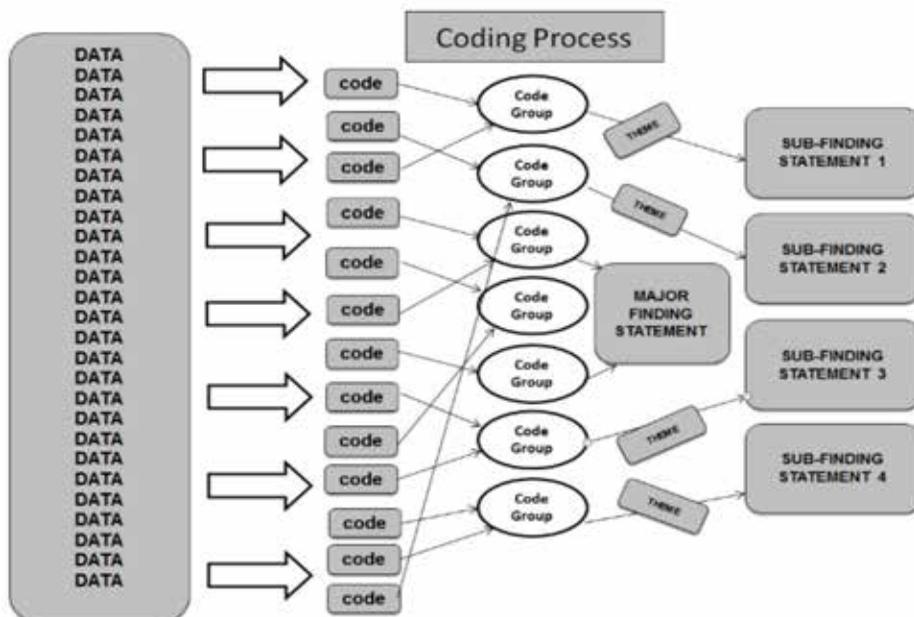


Figure 2: Data analysis process

After an initial reading of the transcripts to identify possible topics and essential phrases, a line by line review of the transcripts occurred "to start the formal coding systematically" (Patton, 2002, p. 463), and with the aid of HyperResearch software (Researchware Inc., 1997-2016) open coding of the transcripts was conducted by further identifying keywords and phrases and creating corresponding codes that eventually amounted to a codebook of 251 different codes. Initial coding through HyperResearch led to 251 codes that were later grouped into 16 code groups to reduce better and create useful categories. After subsequent, line-by-line readings, themes developed over time through constant comparative data analysis. Through the thematic reduction of the categories, the emergent process led to a significant finding statement and four sub findings that formed the structure for a detailed, thick description of the phenomenon. Reflexive journaling occurred throughout the process to bracket personal bias and to engage in the Moustakasian epoche process.

FINDINGS

The major finding statement was: 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.

Participants found that their hands-on learning experiences through the Career and Technical Institute 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. A significant benefit for participants was that hands-on learning they received 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. The data suggested that participants placed value on experiential learning that they felt was unique to CTI and contrasted with their home high schools. Four themes supported the finding: exposure, college and career planning, skills and dispositions, and learning.

Exposure

Participants perceived an enhanced level of readiness as a result of the exposure they encountered that gave them familiarity with their focus area, resulting in confidence and an engendered sense of purpose. Participants credited their readiness to the exposure to the environs and skills associated with their career paths. Theme one was validated in the words of participants who perceived that they received valuable exposure to their actual career fields by working. 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. For example, in her second interview, June revealed that during her CTI experience she had an opportunity to intern in a special education setting and she credited this new experience with helping her, in June's words, "get out of [my] comfort zone." 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." 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.”

Participants learned what work was all about, namely, that there were specific 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 with the skills and knowledge demanded in their new venues.

Exposure to career fieldwork 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 fieldwork 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 theme four – and because it appealed to their learning styles.

College and Career Planning

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. 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.

Participants were quite overt with the 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. She continued, “BOCES 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.” In the end, the specific area of focus such as cosmetology, early education, or nursing elicited a sense of purpose in participants that are not typically matched in the traditional high school where the program of study is generalized.

Adam found that “[BOCES] kind of helped me decide if that is the right career to go in.” 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 teaches you a lot and it helps you figure out what you want to do in your path.” The same principle applied to college major choices with some participants who credited BOCES, commenting like Carrie who said, “CTI helped me, well allowed me to know what I wanted to be when I went to college” or Fran, who said, “I would say they more or less helped you figure out what you wanted to do.” June expressed a similar sentiment finding that her internship experience and her fieldwork “really helped me learn more about my career.”

Participants recognized that career planning was sparse in their home high schools. However, it should be noted that the BOCES course of study generally happened in junior and

senior year, the years that home high schools are typically guiding students in their thinking about careers. Still, most participants spend half of their days at their home high schools, so this opportunity was 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 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.

All 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 confidence in their career paths.

Work Dispositions

Participants perceived that they developed valuable work dispositions that applied to college and career experiences like social skills, time management, and an ability to make friends. The thrust of theme three was that attending college or starting a job in one's career path required certain skills and dispositions in order to be successful.

Respondents, in general, felt that time management was an essential 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. Fran's experience was that "working full time and going to school that was a challenge for me at first because managing work, school, and just regular life, it is kind of complicated." She also learned that in college "you cannot slack off [and] wait until the last minute to do things." 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 the 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 certain work dispositions were necessary for being successful in employment such as professionalism, courteousness, appropriate dress, getting along with others. 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." Heidi pointed out that she had to learn to deal with customers who were not always kind saying, "I do not get like mean back to them; I just stay smart." She continued, "If I took my anger out on them, I would probably get fired." Participants pointed out that they were exposed to and learned about these dispositions in their 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 a crossover with work dispositions. For example, doing group projects requiring 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 discussed were social skills, something that has a 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. 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” because she pointed out that, “I was not a social butterfly. 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. In her program, the classes’ simulated 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.” Several participants identified themselves as being shy before their BOCES experience and that it helped them to overcome that shyness and develop an ability to be social with practically anyone.

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. 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 encouraged by their ability to make a choice to be in a BOCES program that focused on 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 courses in college, having received a taste of the ability to choose. What is more, some respondents asserted that students should be given a choice between hands-on learning and classroom learning because each one appealed to different learning styles or preferences. Eileen pointed out the distinction between hands-on learning and classroom learning. “I do not like learning in a classroom; I would 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.’” Eileen discussed 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 would rather be hands-on than in a classroom.”

A significant 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 caring and understanding. Isaac credited a teacher with realizing that “not every one of your bosses is going to be the nicest person” because “if you got something wrong, he would 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.” In a similar fashion, participants related 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 of focus was study skills which participants reported they learned about at their program. 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. 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 a college, I was pretty nervous, but throughout high school, I did well. I had excellent teachers, they helped me prepare for college, they like my resource room teacher he always helped me prepare, he would 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.

Participants perceived readiness because of the robust learning they experienced as a result of hands-on learning experiences. Consequently, they entered college, the workforce, or both with the perception of greater confidence and a sense of purpose than if they had attended a purely traditional high school program.

Figure 3 presents a graphic of the findings of the components of College and Career Readiness from Experiential Learning.

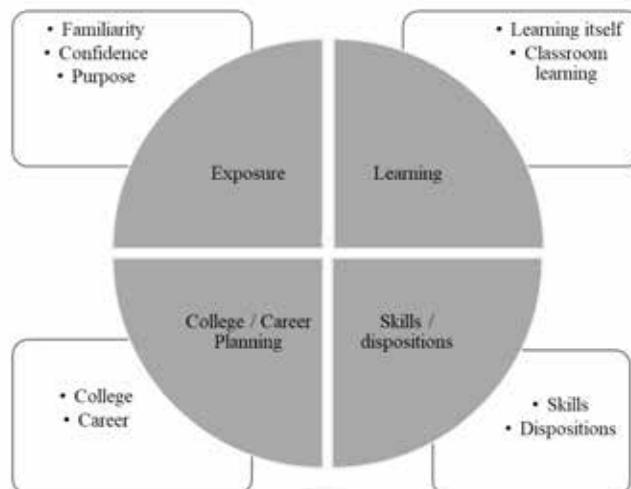


Figure 3: College and Career Readiness from Experiential Learning

The illustration signifies the continuous, generative nature of experience and learning. There is a continual flow from the 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 initiate at any one of the four themes. For example, a young person’s

college or career planning efforts could lead to his/her seeking out exposure to college, and career experiences or he/she could seek out more knowledge— learning—about a career field or college major.

Trustworthiness and Limitations

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). 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 seemed reasonable and plausible to a disinterested debriefer (Cohen & Crabtree, 2006). Member checking is one method of establishing validity. Validity can be confirmed by having the respondents who were interviewed review the findings to confirm whether they represent what the respondents saw as the truth.

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. Last, the methodology was made explicit and 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 to the study include that the sample size was small, and the data relies on self-reported perceptions of participants. Generalizations are user-specific.

IMPLICATIONS AND RECOMMENDATIONS

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 outcome 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 counsellors can introduce micro-level classroom activities and learning experiences that challenge young people to think about continually 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).

The findings indicate 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, policymakers, politicians and indeed researchers might take an 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 them for the transitions they will encounter after high school. Thus, college and career experiences created the ideal conditions for engagement that lead to feelings of readiness (Gentry, Peters, & Mann 2007).

Hands-on learning appealed to participants' sense of their learning styles. Participants frequently reported that 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 because they believed that the program was a good fit for them personally, particularly in how they viewed the most effective conditions for their 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 need to adjust their learning styles somewhat if they were going to be successful in college.

Participant perceptions of their preferences for hands-on learning suggested that they had encountered difficulty during their high school careers with traditional instructional methods. Consequently, college and career planning might 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. Overall, we recommended that schools actively look for ways to provide students with opportunities to apply 21st-century skills through experiential learning.

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. 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. 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). Thus, one recommendation for high schools is to introduce experiential learning systematically in the curriculum.

While there was work exposure that was part of their program, 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 experiences because their program had given them a content preview that their new college classmates had not received. While coursework content was entirely new for most freshman college students, its familiarity with the participants 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, like 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.

Two years of a structured program at CTI helped students to develop a vision of their career trajectory. While participant feedback was mostly positive as it related to the career and college planning that resulted from their CTI experience, it appeared to be a rather unplanned byproduct. It 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).

Participants in the current study 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.

Participants in the current study found that 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. Ironically, Light (2001) discovered that college students benefited from involvement in extra-curricular activities rather than solely focusing on academic pursuits because it helps them learn to manage their time. 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 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 them 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.

Student engagement was evident in the current study through student choice and investment in their 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, New York. However, the findings in the current study agree with the literature (Barton, Hodara, & Ostler, 2015; DeLorenzo, 2000; Toshalis, 2015) concerning how choice gave young people ownership of their pathways. Public school districts might incorporate more programs that allow students to personalize their academic mission to enhance the non-academic skills that lead to readiness. The most direct way to include personalization and choice is to establish scheduling practices that allow students to map out a personalized pathway that leads to confident decisions about college and career pathways.

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 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.

REFERENCES

- Bandura, A. (1986). Social foundations of thought and action: *A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44, 1175-1184.
- Bennett, J. V. (2007). Work-based learning and social support: Relative influences on high school seniors' occupational engagement orientations. *Career and Technical Education Research*, 32(3), 187-214.
- Bentley University. (2014). The Prepared u project: An in-depth look at millennial preparedness for today's workforce. Retrieved from <http://www.bentley.edu/prepared/millennials-in-the-workplace>
- Blustein, D. L. (2006). *The Psychology of Working: A New Perspective for Career Development, Counseling and Public Policy*. New York, NY: Routledge.

- Brown, C. G. (2014, Summer). College prep for all? All students need common foundational skills. *Education Next*. Retrieved from http://educationnext.org/files/ednext_XIV_3_forum.pdf
- Byrd, K. L., & Macdonald, G. (2005). Defining college readiness from the inside out: First-generation college student perspectives. *Community College Review* 33(1), 22-37.
- Carnavale, A. P., & Rose, S. J. (2015). The economy goes to college: *The hidden promise of higher education in the post-industrial service economy*. Georgetown University, Center on Education and the Workforce. Retrieved from <https://cew.georgetown.edu/wp-content/uploads/IO-Executive-Summary-web.pdf>
- Cohen, D., & Crabtree, B. (2006). *Qualitative research guidelines project*. Retrieved from <http://www.qualres.org/HomeLinc-3684.html>
- ConnectEd: The California Center for College and Career. (2012). *College and career readiness: What do we mean? A proposed framework*. Berkley, CA: ConnectEd: The California Center for College and Career.
- Creswell, J. W. (2013). *Qualitative inquiry & research design (3rd ed.)*. [Kindle version] Los Angeles, California: Sage Publications, Inc.
- Creswell, J. W., & Clark, V. L. P. (2011). *Designing and conducting mixed methods research (2nd ed.)*. Thousand Oaks, CA: Sage Publications, Inc.
- De La Ossa, P. (2005). "Hear my voice:" Alternative high school students' perceptions and implications for school change. *American Secondary Education*, 34(1), 24-39.
- DeLorenzo, D. R. (2000). The relationship of cooperative education exposure to career decision-making self-efficacy and career locus of control. *Journal of Cooperative Education* (35)1, 15-24.
- DeLorenzo, J. (2013). *New York State career development and occupational studies commencement credential*. Retrieved from <https://www.conovercompany.com/ny-state-career-development-and-occupational-studies-commencement-credential/>
- Domers, T. (2017). Creating good problems: Redesigning high school for college success. *Phi Delta Kappan*, 99(3), 25-29.
- Dutchess BOCES (2017). *Career and Technical Institute*. Retrieved January 26, 2018. from <http://www.dcboces.org/cti>. Poughkeepsie, NY: Dutchess BOCES.
- Edmunds, J. A. (2012). Early colleges: A new model of schooling focusing on college readiness. *New Directions for Higher Education*, 2012(158), 81-89.
- Edmunds, L. T., & Retallick, M. S. (2013). Effect of an experiential and work-based learning program on vocational identity, career decision self-efficacy, and career maturity. *Career & Technical Education Research*, 38(1), 69-83.

- Ewert, S., & Kominski, R. (2014). *Measuring alternative educational credentials: 2012*. Washington, DC: U.S. Census Bureau, U.S. Department of Commerce. Retrieved April 10, 2014. from <https://www.census.gov/prod/2014pubs/p70-138.pdf>.
- Eyler, J. (2009). The power of experiential education. *Liberal Education*, 95(4), 24-31.
- Frey, N., & Fisher, D. (2015). Beyond academics: Teaching students persistence and resilience. *Principal Leadership* 15(8), 57-59.
- Friedman, T. L. (2016). *Thank You for Being Late: An Optimist's Guide to thriving in the Age of Accelerations*. New York, NY: Farrar, Strauss, and Giroux.
- Gentry, M. G., Peters, S. J., & Mann, R. L. (2007). Differences between general and talented students' perceptions of their career and technical education experiences compared to their traditional high school experiences. *Journal of Advanced Academics* (18)3, 372-401.
- Gewertz, C. (2010). *College and the workforce: What readiness means*. Education Week. Retrieved from <http://learningmatters.tv/blog/web-series/discuss-are-common-core-standards-good-or-bad-for-education/8280/http://www.edweek.org/ew/articles/2010/01/14/17readiness.h29.html?qs=%22college+and+career+readiness%22>
- Gewertz, C. (2017). Where career plans start early: Arkansas sends college and career coaches to secondary schools. *The Education Digest*, 83(1), 54.
- Glaser, B. G., & Strauss, A. L. (2012). *The discovery of grounded theory: Strategies for qualitative research*. New Brunswick, NJ: Transaction Publishers.
- Greenberg, A. D., & Nilssen, A. H. (2015). *The role of education in building soft skills*. (White paper). Wainhouse Research. Retrieved from <http://cp.wainhouse.com/content/role-education-building-soft-skills>
- Hart, P.D. (2008). How should colleges assess and improve student learning? Employers' views on the accountability challenge. A survey of employers conducted on behalf of: The Association of American Colleges and Universities. Washington, DC:
- Higgins, K., & Boone, R. (2003). Beyond the boundaries of school: Transition considerations in gifted education. *Intervention in School and Clinic* 38(3), 138-144.
- Hoerr, T. R. (2017). *The formative five: Fostering grit, empathy, and other success skills every student needs*. Alexandria, VA: ASCD.
- Hofmann, E. (2012). Why dual enrollment? In E. Hofmann, & D. Voloch (Eds.), *New Directions for Higher Education*, 158. *Dual enrollment: Strategies, outcomes, and lessons for school-college partnerships*. San Francisco, CA: Jossey-Bass. 10.1002/he.20009

- Khaled, A., Gulikers, J., Biemans, H., & Mulder, M. (2016). Occurrences and quality of teacher and student strategies for self-regulated learning in hands-on simulations. *Studies in Continuing Education* 38(1), 101-121.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Krefting, L. (1991). Rigor in qualitative research: The assessment of trustworthiness. *American Journal of Occupational Therapy*, 45(3), 214-222.
- Lent, R. W. (2013). Career-life preparedness: Revisiting career planning and adjustment in the new workplace. *The Career Development Quarterly*, 61(1), 2-14.
- Lent, R. W., Brown, S. D., & Larkin, K. C. (1986). Self-efficacy in the prediction of academic performance and perceived career options. *Journal of Counseling Psychology*, 33, 265-269
- Lent, R. W., Hackett, G., & Brown, S. D. (1999 June). A social cognitive view of school-to-work transition. *The Career Development Quarterly*, 47, 297-311.
- Lent, R. W., Ireland, G. W., Penn, L. T., Morris, T. R., & Sappington, R. (2017). Sources of self-efficacy and outcome expectations for career exploration and decision-making: A test of the social cognitive model of career self-management. *Journal of Vocational Behavior*, 99, 107-117.
- Lewin, K. (1935). *A dynamic theory of personality*. New York: McGraw-Hill.
- Light, R. (2001). *Making the most of college: Students speak their minds*. Cambridge, MA: Harvard University Press.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Newbury Park, CA: Sage Publications.
- McCarthy, P. R., & McCarthy, H. M. (2006). When case studies are not enough: Integrating experiential learning into business curricula. *Journal of Education for Business*, 81(4), 201-204.
- McDonald, D., & Farrell, T. (2012). Out of the mouths of babes: Early college high school students' transformational learning experiences. *Journal of Advanced Academics*, 23(3), 217-248.
- Mehan, H. B., & Chang, G. C. (2011). Is it wrong for us to want good things? The origins of Gompers Charter Middle School. *Journal of educational change*, 12(1), 47-70.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Miller, C. C. (2015, October 16). *Why what you learned in preschool is crucial at work*. New York Times. Retrieved from <https://www.nytimes.com/2015/10/18/upshot/how-the-modern-workplace-has-become-more-like-preschool.html>
- Murphy, K. A., Blustein, D. L., Bohlig, A. J., & Platt, M. G. (2010). The college to career transition: An exploration of emerging adulthood. *Journal of Counseling & Development*, 88(2), 174-181.

- Patton, M. Q. (2002). *Qualitative research & evaluation methods. (3rd ed.)*. Thousand Oaks, CA: Sage Publications.
- Perry, J. C., & Wallace, E. W. (2012). What schools are doing around career development: Implications for policy and practice. *New directions for youth development, 2012*(134), 33-44.
- Phi Delta Kappan (PDK). (2017). *The 49th annual PDK poll of the public's attitudes toward the public schools*. Arlington, VA: Author. Retrieved from http://pdkpoll.org/assets/downloads/PDKnational_poll_2017.pdf
- Piaget, J. (1936). *The Origins of Intelligence in Children*. New York: International University Press, 1952.
- Pianin, E. (2014, January 29). The surprising reason college grads can't get a job. *The Fiscal Times*. Retrieved from <http://www.thefiscaltimes.com/Articles/2014/01/29/Surprising-Reason-College-Grads-Can-t-Get-Job#sthash.tm4eMA0B.dpuf>
- Pierce, D. (2016, April/May). All in this together. *Community College Journal, 86*(5), 31-36.
- Radcliffe, R. A., & Bos, B. (2013). Strategies to prepare middle school and high school students for college and career readiness. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 86*(4), 136-141.
- Raelin, J. A. (2010). The work self-efficacy inventory. Menlo Park, CA: Mind Garden. Retrieved from <http://www.mindgarden.com/products/wsei.htm>.
- Raelin, J. A., Bailey, M., Hamann, J., Pendleton, L., Raelin, J., Reisberg, R., & Whitman, D. (2011). The effect of cooperative education on change in self-efficacy among undergraduate students: Introducing work self-efficacy. *Journal of Cooperative Education and Internships, 45*(2), 17-35.
- Researchware, Inc. (1997-2016). HyperRESEARCH Software (version 3.7.5) [software]. Available from <http://www.researchware.com/products/hyperresearch.html>
- Saldaña, J. (2016). *The Coding Manual for Qualitative Researchers*. Thousand Oaks, CA, Sage Publications, Inc.
- Santos, J. L., & Haycock, K. (2016). Fixing America's College Attainment Problems: It's about More than Affordability. Critical Considerations for Any New Federal-State Partnership. *Education Trust*.
- Sheu, H. B., Lent, R. W., Brown, S. D., Miller, M. J., Hennessy, K. D., & Duffy, R. D. (2010). Testing the choice model of social cognitive career theory across Holland themes: A meta-analytic path analysis. *Journal of Vocational Behavior, 76*(2), 252-264.
- Simons, E. G. (2015). *New York City early college high schools: Perceptions of college presidents and high school principals on benefits and institutional values*. (Doctoral dissertation). Retrieved from https://fisherpub.sjfc.edu/education_etd/211

- Southern Association of Colleges and Schools Commission on Colleges. (2013). *Quality enhancement plan pioneering pathways: Learn by doing*. Dallas, TX: Texas Woman's University.
- Sparks, D., & Malkus, N. (2013). First-year undergraduate remedial coursetaking: 1999-2000, 2003-04, 2007-08. *Statistics in Brief, January 2013*. U.S. Department of Education, National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubs2013/2013013.pdf>
- Strauss, A. L. (2008). The constant comparative method of qualitative analysis. *Grounded theory review (7)* 3. Retrieved from <http://groundedtheoryreview.com/2008/11/29/the-constant-comparative-method-of-qualitative-analysis-1/>
- Strauss, A. L., & Corbin, J. (1998). *Basics of qualitative research: Grounded theory procedures and techniques (2nd ed.)*. London, England: Sage.
- Toshalis, E. (2015). Five practices that provoke misbehavior. *Educational Leadership*, 73(2), pp. 34-40.
- Vargas, J., Hooker, S., & Gerwin, C. (2017). Blending high school and college can sharpen the focus of each. *Phi Delta Kappan*, 99(3), 13-18.
- Wee, S. J., Weber, E. K., & Park, S. (2014). Early childhood practicum students' professional growth in the USA: areas of confidence and concern. *International Journal of Early Years Education*, 22(4), 409-422.
- Wheeler, M., Davis, J., & Evans, S. G. (2017). *An Analysis of School-to-Work Readiness* (Unpublished Doctoral dissertation). Saint Louis University, St. Louis, MO.
- Wictionary, (2017). *Sho Shin*. Retrieved from <https://en.wiktionary.org/wiki/%E5%88%9D%E5%BF%83>
- Wingate, U. (2006). Doing away with 'study skills'. *Teaching in higher education*, 11(4), 457-469.