High School Seniors' Educational Experience Influencing the Decision to Pursue a Career in Nursing

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HIGH SCHOOL SENIORS’ EDUCATIONAL EXPERIENCE INFLUENCING THE DECISION TO PURSUE A CAREER IN NURSING

by

Ryan L. Rowe

A dissertation submitted to the Graduate College in partial fulfillment of the requirements for the degree of Doctor of Philosophy Educational Leadership, Research, and Technology Western Michigan University December 2017

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HIGH SCHOOL SENIORS’ EDUCATIONAL EXPERIENCE INFLUENCING THE DECISION TO PURSUE A CAREER IN NURSING

Ryan L. Rowe, Ph.D.
Western Michigan University, 2017

Many high school students interested in nursing as an occupation choose to engage in a Career and Technical Education (CTE) program and subsequently progress through the exploration stage of Super’s Career Development Theory in a succinct, deliberate, and intentional manner. While CTE continues to serve as an educational option for many high school students interested in nursing, its value as a means for students to crystallize, specify, and implement the choice to pursue the high-wage, high-skill, and high-demand career of nursing is not understood to the extent possible. CTE is regularly overlooked as a viable educational option by high school students who are often unaware of the specific experiences that influence a decision to pursue nursing.

Researchers of career development and choice theories have studied the career decision-making process of individuals throughout what Super (1990) refers to as the exploration phase, ages 15 through 24. The research, however, does not specifically address how educational experiences through a CTE program influence the career decision-making process of twelfth-grade students crystallizing, specifying, and implementing postsecondary plans. The purpose of this study, therefore, is to explore the lived experiences of twelfth-grade nursing preparation CTE students by describing and interpreting how their CTE experience influences their decisions to pursue a career in nursing. This in-depth qualitative study explores experiences of twelfth-grade students
enrolled in the Nursing Preparation CTE program offered on site at the Lenawee Intermediate School District (LISD) TECH Center. Eight students were interviewed twice during the school year to better understand the decision-making process through specific educational experiences leading to a determination to pursue a career in nursing.

Findings determined through this study offer implications for researchers and practitioners furthering knowledge, understanding, and advantages of CTE. Super’s Theory of Career Development is applicable to most individuals, including the students who participated with this study, who throughout their lifetime will likely progress through all five of Super’s (1990) stages. However, by participating in the Nursing Preparation CTE program, students had the opportunity to explore specific aspects of nursing. CTE programs, with their intensive career exploration activities, is the perfect way to accomplish Super’s exploration stage, specifically the process of crystallizing, specifying, and implementing a postsecondary plan. Nursing Preparation students provided the data as I, the researcher, answered the research questions illustrating how influential experiences such as dual enrollment and CNA training aligned with the exploration stage of Super’s theory throughout their twelfth-grade experience. Super’s Theory of Career Development, specifically the exploration stage, includes a timeframe whereby students, through career-related exploration activities, had the opportunity to learn more about their abilities and skill sets, develop self-concepts, and engage in influential experiences. Not only were they influenced, the experience confirmed their decision and strengthened their resolve to pursue the career by the end of their senior year in high school.
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To Heather, Hannah, and Andrew. Thank you for your patience and understanding, love and support. Mom and Dad, thank you for being extraordinary role models. I am blessed to have been raised by you. Grandma Barb and Grandpa Jack, you have provided so much, often when I needed it most. I love each of you so very much. We together have accomplished this goal; we have climbed the highest mountain.

Ryan L. Rowe
DEDICATION

To my wife, Heather, and my children Hannah and Andrew. I could not have attained this accomplishment without your patience, love, and support. Together we have accomplished this goal and climbed the highest mountain.
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CHAPTER I

INTRODUCTION

Throughout high school students receive, to some degree, guidance and counseling towards various career exploration opportunities. This guidance, provided by a school guidance counselor, parent, teacher, or other individual, is influenced by myriad factors, either intrinsic or extrinsic or both, which influence career choice (Edwards & Quinter, 2011). Throughout each school year, based on educational experiences, students who enroll in career and technical education (CTE) programs engage in career exploration and developmental tasks as they make decisions whether or not to further explore their chosen career pathway. In fact, 54.6% of 2009 public high school graduates earned at least 3.0 credits through CTE programming (National Center for Educational Statistics).

Vocational behavior, including the developmental process of making career decisions, has been discussed for over a century. Frank Parsons’s statement in 1909 illustrated an assumption regarding vocational behavior: that exploration of the self and the world of work is critical in making a reasoned choice of career (Flum & Blustein, 2000). This remains true today. Esters (2008) stated, “Career exploration is a major construct in career development and plays a central role in most career-choice and development theories” (p. 23). Theorists such as Super (1990) described career decision-making as a lifelong process. Although this may be true, career exploration activities in high school, specifically throughout a student’s twelfth-grade year, influence a student’s commitment to a career path at a critical time (Germeij & Verschueren, 2007). This critical time, the student’s last year in high school, leads to a choice made and,
subsequently, requires valuable resources to be used to initiate a postsecondary experience and enter a viable career.

A study conducted by Germeijs, Verschueren and Soenens (2006) illustrated an effect of indecisiveness on career decision-making. Results indicated indecisiveness as a risk factor for twelfth-grade students as they cope with several career decision-making tasks. Furthermore, the researchers found that higher levels of indecisiveness as students begin their twelfth-grade year predicted lower levels of the perceived amount of information regarding self-concept and the environment as well as lower levels of decisional status as this exploration experience concludes at the end of the student’s senior year.

Super’s research and subsequent Theory of Career Development illustrates the career development process through stages, including an exploration stage with developmental tasks where students may learn, through involvement with various experiences, more about their roles within a particular career (Lewis & Kosine, 2008). Super’s first stage, which occurs prior to exploration, is growth. According to Luzzo and Severy (2009), exploration, the second stage of Super’s career development process, is considered by many to be the heart of the career decision-making process. The exploration stage includes developmental tasks such as crystallizing, specifying, and implementing a career choice through courses and skill development. Establishment, maintenance, and disengagement follow exploration in the series of five stages.

Career exploration experiences for students enrolled in secondary career and technical education courses occur most often throughout the eleventh and twelfth-grade years of high school. These experiences offer an opportunity for students to crystallize, specify, and implement their career choice beyond high school. “Crystallizing” means the
student moves from a general preference of career pathway to a more specific career choice. “Specifying” means the student moves from a career choice to an exploration of that choice. That is, students may participate in exploration activities and these opportunities lead to an affirmation and provide clarity. Finally, “implementation” means the student makes strategic decisions regarding the process of entering college and a career. Yet much of the research regarding vocational training, career exploration, and career choice is focused on student experiences and decisions through college and beyond (Esters & McCulloh, 2008; Grier-Reed, Skaar, & Conkel-Ziebell, 2009; Bielick et al., 2013). Studies based on higher education and job development document various aspects of career development and choice after substantial efforts to reach a career or postsecondary institution have, by this point in an individual’s educational path, already occurred. Although career aspirations for secondary students are at times unrealistic and limited, it stands to reason that through the exploration stage, and prior to committing to a definitive path following high school, specific experiences and developmental tasks through the twelfth-grade year CTE program could make the transition to the establishment phase (Super, 1990) more effective.

More than a century of research and published studies regarding career development and choice has passed. Yet many students in high school remain unaware of the opportunities a CTE program may offer to crystallize, specify, and implement a decision regarding their choice of career. However, one common process and system in place for all students throughout Michigan to develop a career plan is completion of an Educational Development Plan (EDP). Each student who attends a public high school in the state of Michigan is afforded the opportunity to document aspects of his/her educational and career interests through an EDP. The Revised School Code MCL
380.1278b(11) requires each school district in the state of Michigan to provide the opportunity for each student to develop, beginning in the seventh grade, an EDP, which the student reviews and updates each year until the student graduates from high school. According to the Michigan Department of Education (2009) EDPs are intended to align students’ career development goals with academic requirements.

Many students, as they progress through high school, especially those who choose to attend CTE programs, begin to consider more seriously their EDPs and the selection of coursework that may best prepare them for an intended career. Often, CTE students are presented various educational options that allow exploration of academic, technical, and environmental experiences. Eighty four percent of 2009 public high school graduates earned credit through CTE programs, related to a specific occupational area (National Center for Education Statistics).

As students experience career exploration courses, specifically throughout their twelfth-grade year, educational opportunities including Advanced Placement (AP), International Baccalaureate (IB), early/middle colleges, and charter school academies offer the opportunity for many students to further their education towards a specific career pathway. Due to advancements specifically outlined within the Carl D. Perkins Career and Technical Education Act of 2006, vocational education, now referred to as career and technical education (CTE), is considered to also be a viable education option for students to consider as they prepare for college and career (Stipanovic, Lewis, & Stringfield, 2012).

In the past, vocational education stood for educational programming designed to prepare non-college-bound students for a career which did not require educational attainment beyond a high school diploma. Dare (2006) states, “Once considered a track
for non-college-bound high school students, CTE has evolved to include an increased emphasis on rigorous academic preparation and integrated and articulated CTE courses and programs” (p. 73). Today, technology and the labor market influence aspects of CTE programs offered to youth and, subsequently, the outcomes students attain. Specifically, advances in technology and the labor market influence the retirement decisions of older workers, the skill acquisition of younger workers, and the interindustry wage structure (Bartel & Sicherman, 2015). Each of these has the potential to impact CTE programs and experiences CTE students encounter as they transition from a secondary CTE program to college and career.

CTE is reimagining itself through alignment of rigorous academic standards with hands-on, relevant, inquiry-based learning opportunities focused on the experience eventually leading to a postsecondary certificate or degree. A report by Carnevale, Smith & Strohl (2013) illustrated that today’s workforce within the United States is more educated today than ever before. In 1973, workers with postsecondary education held only 28% of jobs. In contrast, employees with a postsecondary education held 59% of jobs in 2010 and are projected to hold 65% of jobs in 2020. Furthermore, three of the fastest-growing occupations--STEM, healthcare professional, and community services--also have the highest demand for postsecondary education and training.

Students who choose to enroll in a CTE course their junior year of high school may enter a sequential path towards a postsecondary certificate or degree. This process, established through Carl D. Perkins legislation (2006), serves as a four-year educational path for students entering eleventh grade. This legislation speaks specifically to CTE and outlines facets of CTE that may guide students as they plan for and complete CTE coursework (Lewis & Kosine, 2008). The National Research Center for Career and
Technical Education illustrated through various studies the benefits of a Program of Study (POS) for high school students enrolled in CTE coursework, which usually runs concurrent with a high school student’s junior and senior years. Although research related to the positive impact of POS exists, implementation and use of career development resources such as POS may not be utilized as often as possible.

Sixteen Career Clusters and related Career Pathways construct the framework to assist students as they engage in career exploration opportunities to better prepare for college and career (National Association of State Directors of Career Technical Education Consortium, 2013). Sophomores throughout Lenawee County, Michigan, who express interest in a career within the Health Sciences Pathway may choose from a variety of educational options related to this career path, such as health sciences-related CTE programs, as they enroll in coursework their eleventh grade year. This educational option and plan aligns with John Dewey’s belief that school experiences should be engaging with a greater balance between rigorous academics and practical, real-world applications (Stipanovic, Lewis, & Stringfield, 2012). For students interested in career exploration within the Health Sciences Pathway, the Lenawee Intermediate School District (LISD) TECH Center offers four programs: Dental Aide, Health Care Careers, Emergency Medical Technician (EMT), and Careers in Biochemical Technology. In addition, Madison High School, Onsted Community Schools, Morenci Area Schools, Clinton Community Schools, and Sand Creek Schools, each located in Lenawee County, Michigan, currently offer courses related to biomedical technology. Juniors who attend one of the four CTE programs offered at the LISD TECH Center and non-LISD TECH Center students who, after their junior year receive a recommendation from their school
guidance counselor, may apply to enroll in Nursing Preparation. This CTE program is intended for twelfth-grade students who wish to further explore a career in nursing.

Research exists to validate the value of educational experiences related to career exploration (see Esters, [2008]; Drage, [2009]; Dare, [2009]). For students interested in a nursing career, specific experiences through CTE coursework may prove to be a viable means to influence their decision-making process to pursue further educational programming necessary to work in this field. Others may choose to attain a Certified Nurse Assistant (CNA) certificate, permitting them to enter an applicable nursing-related occupation upon completion of certification requirements. Regardless, students enrolled in a nursing preparation CTE program have the opportunity to attain technical skills aligned with core academics while practicing contextual skills. Students enrolled in this course immerse themselves in career awareness activities as they prepare for the given career. Influential aspects of the experience may advance students’ knowledge of nursing and help determine a specific path towards their career choice.

At the conclusion of the twelfth-grade, students choose to pursue a given career. According to the Association for Career and Technical Education (ACTE), more than 70% of secondary CTE concentrators pursued postsecondary education shortly after high school and four out of five secondary CTE graduates who pursued postsecondary education after high school had earned a credential or were still enrolled two years later. The vital determination made by students to pursue postsecondary education early in Super’s (1990) exploration stage impacts the framework for students to construct plans for college and a career. This may include the comprehensive process to apply to a postsecondary institution and seek sources to finance further pursuit of education after high school. Super’s exploration stage focuses on the fluid continuous process to narrow
choices referred to as crystallization. Crystallization occurs through engagement with relevant experiences which encourage a student to choose further training and education pertinent to a specific occupation. As the student develops a sense of self and an understanding of the world of work, he or she progresses through a fluid process of exploration crystallizing the preferences towards a given career (Cleveland, 2013).

Twelfth-grade students attend a nursing preparation CTE course to further explore various aspects of a nursing career. However, students may have a variety of expectations for what enrollment in the course will offer. One student outcome attained through completion of a nursing preparation CTE course may be affirmation through various educational experiences such as job shadowing and clinical rotations that the intended career path is indeed a viable and practical choice. This determination will affirm planning and preparation as the student continues through his or her educational development plan. The desire and decision to pursue an intended career could potentially save time, effort, and finances, if affirmation is achieved.

Students may think they know what they wish to do, but have little to no experience within the work environment of their intended career. Therefore, students often modify their educational plans once they realize what responsibilities a specific career entails. Unfortunately, many students who do not attend a nursing preparation CTE course in high school but pursue a nursing degree in college do not have the opportunity to affirm that a career in nursing is practical and indeed viable until after they pay or seek funding to attend postsecondary coursework. By this time, resources may be exhausted, and the student may have accumulated student loan debt for the opportunity to simply explore a potential career. According to The Institute for College Access and Success
two-thirds of students who graduate from American colleges and universities have student loan debt an average of $26,600.00 (as cited in Forbes, 2013).

Students today have a variety of educational options as they continue through their educational development plan. Regardless of opportunity--IB, AP, dual enrollment, or CTE--it is important for students, educators, and CTE administrators to understand experiences and the process which influences the students’ decision-making process. Furthermore, exploring a career through relevant experiences throughout the twelfth-grade year and subsequently making a choice to pursue the career prior to attending a postsecondary institution may have numerous advantages to various stakeholders. Stakeholders such as counselors and CTE administrators who have the responsibility to initiate, sustain, and improve secondary career exploratory programming specific to the health sciences may benefit from understanding this student experience: “Findings may hold important implications for developing effective curricula, improving instructional methods, and enhancing pedagogical theory” (Cooper, Fleisher & Cotton, 2012, p. 1).

**Statement of the Problem**

Health careers have been, and continue to be, in demand. Becoming a nurse provides an opportunity for employees to work in an environment where salary and benefits are often more than sufficient to support a family. Furthermore, within Lenawee County alone there are three postsecondary institutions, each of which offers academic programs for students to earn a nursing certificate or degree.

However, many students do not take advantage of career and technical education (CTE) programs that allow opportunities, academic and technical, to explore aspects of a career. More specifically, throughout the year of exploration that these programs provide, students have the opportunity to engage in developmental tasks in order to crystallize,
specify, and implement their career choice. Students who do not choose to engage in CTE programs may not have similar experiences to develop and plan a tentative goal related to a career (crystallization), begin to affirm the goal through influential experiences (specification), and determine a path to further pursue the goal (implementation). A student’s progress story regarding his/her CTE experiences, specifically a nursing preparation program, has the ability to illustrate how each developmental task is mastered, leading to a determination regarding the next stage of their career (Brown & Lent, 2005).

On the surface, it appears that many students spend valuable time, effort, and financial resources to explore a career in nursing after high school when, through a nursing preparation CTE program, relevant experiences could have influenced the process and decision to pursue, or not pursue, a career in nursing much earlier in the exploration stage. According to the Michigan Center for Nursing Survey of Nurses (2012), licensed nurses who indicated they voluntarily left a nursing position did so for reasons which included general lack of job satisfaction and physical demands of the job, two factors which may have been discovered through a CTE nursing preparation program. Considering the fiscal realities of today, students interested in nursing who choose not to engage in CTE exploratory programming in high school then use valuable resources to simply explore a career in a time when they may have many competing financial and personal needs.

While CTE continues to serve as an educational option for many high school students, its value as a means for students to crystallize, specify, and implement the choice to pursue the high-wage, high-skill, and high-demand career of nursing has not been explored. Throughout the U.S. an increased emphasis has been placed on
educational reform. Career development is certainly part of these reform efforts (Dykeman et al., 2003). However, there is a recognized lack of research related to career development with youth (Manzi, 2005, Lewis & Kosine, 2008). Kazis (2005) stated that little can be said with certainty about the value of CTE in the U.S. today. Furthermore, Lewis and Kosine (2008) stated that few studies have explicitly examined the effect of students participating in CTE courses on career development. Finally, studies focused on career exploration process behaviors and developmental tasks, and what influence these have on crystallizing career choice, are deficient (Esters, 2008). Expanding the body of research related to Super’s (1990) exploration stage of career development, specifically the developmental tasks of crystallizing, specifying, and implementing a career choice, may benefit many who seek to further understand, and potentially benefit from, career development efforts through CTE.

Lewis and Kosine (2008) state that the decision for most high school students to study certain occupations is as much exploration as it is preparation for employment. Furthermore, the researchers note that relevance of their courses may provide benefits for students, including increased educational involvement, even if the experiences in these courses eventually lead to decisions by the student to pursue different occupational goals. Lewis and Kosine (2008) suggest a need for further research to determine which aspects of CTE programs aid students with the career development process. Understanding the career development process through the lens of students engaged in a nursing preparation program may illustrate CTE as an effective avenue for students to crystalize, specify, and implement their decision to pursue a particular career.

This study is necessary to gain further knowledge of how students develop the foundational components of career decision-making identified by Super, specifically the
developmental tasks of crystallizing, specifying, and implementing a choice of career. Although nursing preparation students will be the focus of this particular study, results of this research may lead to the development and delivery of instructional best practices based on relatively unknown and undetermined influential aspects of many CTE programs. Subsequently, CTE administrators may have the opportunity to expand the role of these specific educational experiences through health science-related CTE programs so more students have the opportunity to affirm the decision to pursue a given career. This study may benefit postsecondary institutions that offer a degree in nursing yet often receive students with little to no relevant experiences related to this career field and employers who have nurses voluntarily exit the profession due to dissatisfaction related to the career. Most importantly, information documented through this study at the midway point and following the students’ career exploration experience has the potential to identify relatively unknown influential experiences--academic and technical in nature--that empower the student to crystallize, specify, and implement a decision to pursue the intended career.

**Purpose Statement**

Researchers of career development and choice theories have studied the career decision-making process of individuals throughout what Super (1990) refers to as the exploration phase, ages 15 through 24. The research, however, does not specifically address how educational experiences through a CTE program influence the career decision-making process of twelfth-grade students crystallizing, specifying, and implementing postsecondary plans. The purpose of this study, therefore, is to explore the lived experiences of twelfth-grade nursing preparation CTE students by describing and interpreting how their CTE experience influenced their decisions to pursue a career in
nursing. I use the lens of the second stage of Super’s theory of career development. The second stage of Super’s theory, called “exploration,” has three levels: (a) crystallizing, (b) specifying, and (c) implementing a career choice. “Crystallizing” means the student moves from a general preference of career pathway to a more specific career choice. “Specifying” means the student moves from a career choice to an exploration of that choice. That is students may participate in exploration activities and these opportunities lead to an affirmation and provide clarity. Finally, “implementation” means the student makes strategic decisions regarding the process of entering college and a career.

**Research Questions**

This study will explore twelfth-grade students’ career exploration and development experience, through interviews with the students as they progress through the Nursing Preparation CTE course at the LISD TECH Center. The overarching research question is: *What educational experiences influence a twelfth-grade CTE student’s decision to pursue a career in nursing?*

Research Sub-questions

a. What experiences through a twelfth-grade student’s Nursing Preparation CTE experience prompt the crystallizing process to pursue a career in nursing?

b. What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence specification to pursue a career in nursing?

c. What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence implementation to pursue a career in nursing?
Methods Overview

This in-depth qualitative study will explore experiences of twelfth-grade students enrolled in the Nursing Preparation CTE program offered on site at the LISD TECH Center. Eight students will be interviewed and responses will be utilized to better understand the decision-making process through specific educational experiences leading to a determination to pursue a career in nursing. Qualitative exploration is intended to explain instead of measure, to seek meaning of a lived experience instead of quantifying, and to understand instead of generalizing (Zambo, 2004). In-depth interviews will occur to question participants in a deliberate manner as this student experience is explored more deeply. Super’s Career Development Theory, specifically the exploration stage and the developmental tasks of crystallizing, specifying, and implementing a career choice, is the basis of the questions to be asked through one-hour interviews. The interviews will take place twice throughout the students’ year-long CTE experience. Specifically, interviews with the participants will take place at the mid-way point and near the end of their educational experience. Interviews will be audiotaped and then transcribed. Finally, transcriptions of the interviews will be analyzed for themes as they may or may not align with the overarching research question.

Conceptual Framework

The literature review supports the assumptions for the framework including various influential decision-making factors outlined through career development and choice theories. Career exploration and choice continues to be an area of focus as educational reform initiatives are supported through state and federal legislation. The social context towards applying this theory has evolved, yet remains relevant today.
It is appropriate for Super’s Theory of Career Development, specifically the exploration stage, to focus on adolescents’ experience through a Nursing Preparation CTE course. Super’s exploration stage outlines aspects of the 15-24-year-old age range. However, a vital decision is made during or immediately following a student’s twelfth-grade year as the individual progresses through developmental tasks of crystallizing, specifying, and implementing a choice of career. Brown and Lent (2005) state, “The social expectation that adolescents seek occupations congruent with their abilities and interests is communicated to them in the form of vocational development tasks” (p. 49). Like many others, twelfth-grade students who enroll in CTE programming as a means to participate with relevant experiences related to nursing have the opportunity to, and most likely will, continue to explore careers throughout their lifetime. However, these students have chosen to expedite their career decision-making process based on relevant and related experiences which influence their decision at a pivotal time in their lives. Rather than explore a career interest throughout the entire exploration phase as 15-24-year-olds, this group of students at the 15-18-year-old time frame have positioned themselves to align with aspects of the exploration phase much earlier, and in a much more succinct manner, prior to entering a postsecondary experience during the 19-24-year-old time frame. Students participating in this study have chosen to explore a path throughout or immediately following their twelfth-grade year so that an important outcome--making an informed career choice--can occur before substantial investment is made towards a postsecondary educational experience or career.

Theory of Career Development is applicable to most individuals who, throughout their lifetime, continue through all five of Super’s (1990) stages. According to the U.S. Department of Labor’s Bureau of Labor Statistics (2012), the average person born in the
latter years of the baby boom (1957-1964) held 11.3 jobs from age 18 to age 46. Furthermore, almost half of these jobs were held by individuals aged 18 to 24. Through a specific career exploration experience, the population participating in this study has chosen the opportunity to affirm, early in career development and choice process, whether or not a career in nursing is indeed a viable option. This study will explore more deeply elements of Super’s exploration stage, specifically the process to crystallize, specify, and implement a path towards a viable career. This study may illustrate how students’ influential experiences align, or do not align, with this stage of the theory throughout their twelfth-grade experience. Super’s Theory of Career Development, specifically the exploration stage, includes a timeframe whereby students, through career-related exploration activities, have the opportunity to learn more about their abilities and skill set, develop self-concept, and engage in experiences which may influence the career decision-making process.

Lewis and Kosine (2008) wrote that identity development and vocational decision-making are closely linked. As students immerse themselves in relevant, career-related experiences, academic and technical activities, and postsecondary planning they are provided an environment in which to explore realistic choices regarding their future. Brown and Brooks (1996) stated that, during this exploration stage, “occupational daydreams crystallize into a publically recognized vocational identity with corresponding preferences for a group of occupations at a particular ability level” (p. 132). Ideally, students who choose opportunities for career exploration, such as CTE programming, crystallize and eventually specify a career choice through understanding self-concept. CTE has the potential to help with this career development process and, if successful, may empower a student to implement a specific choice including the pursuit of additional
education and training related to a career. Through developing and understanding one’s self-concept through a CTE experience, students are not only able to understand more of themselves but may gradually crystallize, specify, and implement their career choice leading to a decision to pursue a nursing career.

Limitations and Delimitations of the Study

This study explores the experience of twelfth-grade students attending the Nursing Preparation CTE course at one specific location within Lenawee County. According to Onwuegbuzie and Leech (2007), typically the goal of a qualitative study is to obtain insights into a particular process that occurs within a specific location. Students participating in this study attend school within the county and, as twelfth-grade students, also attend the Nursing Prep program. Furthermore, this study is focused on the experiences of students specifically throughout the 2016-17 school year. Finally, data is
subject to the reliability of narrations communicated by twelfth-grade students who may, at times, be challenged by the process of self-reflection aimed to illustrate an accurate representation based on the personal, social, and historical context of their lived experience (Creswell, 2007).

Due to this study’s focus on the experience of those attending the Nursing Preparation program at the LISD TECH Center, results may or may not be representative of the student experience in every county throughout the state of Michigan. All nursing preparation programs are categorized under the same classification of instructional programs (CIP) code with the Michigan Department of Education outlining consistent academic and technical standards. However, educational opportunities available from location to location throughout the state, facilitated to reach standards, vary to some degree. Data attained from this study may benefit educators and educational leaders facilitating relevant educational experiences leading to students affirming decisions to pursue given careers. According to Marshall and Rossman (2006), “A discussion of these considerations reminds the reader that the study is bounded and situated in a specific context. The reader, then, can make decisions about its usefulness for other settings” (p. 42). As a researcher I am uniquely qualified to lead this study. I have worked as a teacher and school administrator for 18 years, 12 of which were dedicated to leading aspects of CTE programming.

Summary

In general we do not know enough about the career development and choice process of twelfth-grade CTE students as they explore a career specific to nursing. Career exploration and choice has been a topic of discussion and a focus of research for over a century. However, changes in the economic environment, quality of CTE programming,
and the importance of a postsecondary experience have influenced a desire by many students to determine a career path much earlier and in a much more deliberate manner within the exploration stage. It is vital for students, based on experiences through their CTE course of study, to make an informed decision. This decision, made during or immediately after completion of the Nursing Prep CTE course, and prior to the student entering college and a career, has potential to be determined after progressing through an intentional process to crystallize, specify, and implement a choice of career.
CHAPTER II
LITERATURE REVIEW

This study explores sub-elements of Super’s Career Development Theory, specifically the exploration stage and aligned developmental tasks, to better understand the career decision-making process of twelfth-grade students as a determination is made to pursue, or not pursue, a career in nursing. Super (1990) states that decisions are made throughout the entire lifetime; however, it is vital that students make the first of many career-altering decisions as early as possible and after experiencing relevant, real-world educational opportunities that may help them in the career altering decision.

Career Decision-Making Process Overview

The process of determining a vocation or career has been studied for well over a century. Frank Parsons is considered the pioneer of vocational guidance in America (Baker, 2009). Parsons’s work, in part, was based on providing a better educational pathway for youth. Many in the early 20th century, including Parsons, were concerned about career and economic development and believed, similar to today, that children have the opportunity to succeed through a quality public education, especially when enhanced with a real-life, relevant experience related to life outside the classroom. Baker (2009) provided the following insight regarding students in the early 20th century: “Children leaving school to drift aimlessly was seen as a waste of human potential and an inefficient use of human resources” (p. 201). The same could very well be said today.

Parsons’s initial work was established as a career decision-making framework, not considered a theory, to be used by career counselors (Brown & Brooks, 1996).
Parsons’s framework provides the foundation for most career development theories established since that time. Theorists who have utilized Parsons’s framework for their theories include Holland (1985) and Lofquist and Dawis (1969). Most of this work was centered on the practice of career counseling. Parsons’s model of “trait and factor” theory continued as the standard of career development and choice until Carl Rogers (1941, 1951). Rogers’s work also focused on career counseling, specifically client-centered counseling and therapy. Ginzberg, Ginsburg, Axelrad, and Herma (1951) proposed a new approach, contrary to the trait and theory framework, that illustrated career development as a life-long, developmental process (Brown & Brooks, 1996). Super (1953) published his theory of career choice and development, which included aspects of trait and factor, developmental psychology, and personal construct theory from which ideas about self-concepts, and sociological theory emerged (Kelly, 1955).

Super (1990) admitted in his theoretical statement that the disparate segments of his theory have not been properly cemented together and suggests that building a truly comprehensive model of career choice must be left to future theorists. Super and his followers have had, and continue to have, a tremendous impact on career development thinking and research but a much smaller impact on practice (Brown, 2002).

Holland (1959) published work focused on a trait-oriented explanation of career choice. His theory is based on an assessment system of individuals and their work environment (Brown & Lent, 2005). Holland’s work prompted numerous research studies, approximately four-hundred and fifty, and had an impact with practitioners due to the instruments he developed. Based on Holland’s work, several instruments have been developed to help identify and align an individual’s personality with viable options for college and career.
Osipow (1990) stated that the most influential theories converge in some important ways. He identified the four dominant theories as Holland’s theory of personality and vocational choices (1985), Krumboltz’s social learning theory (Mitchell & Krumboltz, 1990), Super’s developmental theory, and Dawis and Lofquist’s (1984) work adjustment theory (Brown, 2002). Brown and Brooks (1996) stated, “Most theories of career choice and development are rooted in positivism, a philosophical approach that supports logical proofs and empirical bases and has dominated the philosophy of science for centuries. Human behavior can be objectively observed and measured. Moreover, behavior operates in a lawful, linear fashion: cause and effect can be inferred” (p. 9).

Super’s primary approach to career counseling was to provide individuals the opportunity to explore career development activities where they learned about themselves and the world of work through a variety of options. Similarly, this methodology supports the approach that CTE students enrolled in a Nursing Preparation course engage in throughout this course of study. Super suggests that clients, in this case twelfth-grade students, explore occupational options and, at the same time, better understand themselves in specific work roles as well as other areas of life. Examples of interventions to assist with vocational maturity and career decisiveness are offered by Osipow et al. (1980) and Super and Hall (1978). However, the research specifically on young adults is limited. It is vital to determine, duplicate, and expand the specific influential career exploration activities that allow students the opportunity to crystallize, specify, and implement a choice of career, and at the same time, define their self-concept. Snyder and Campbell (1982) suggest that by doing so students will be empowered to exhibit their own specific social cognitive theories and biases. Students may have a perceived notion, perhaps biased, that they are able to fulfill responsibilities, academic and technical in
nature, related to their intended occupation. Through relevant experiences, students enrolled in CTE programs are often able to crystallize their own perceptions about their ability to do so. Students enrolled in Nursing Preparation have the opportunity to participate in a variety of career exploration activities where behaviors can be observed, studied, and measured. The career decision-making process which furthers the crystallization process involves a series of career exploration activities and events where students assess their self-concept in the context of this specific occupation. This combination of social cognition and vocational behavior is appealing to researchers as those interested in finding more about vocational psychology and behavior elicit theoretical innovations (Blustein, p. 125). Specifically, Blustein argues that in vocational psychology an individual’s beliefs, attitudes, values, and social perceptions have been integrated under the rubric of the self-concept system (e.g., Harren, 1979; Super, 1982).

As students determine to pursue given careers, they face numerous challenges related to globalization, workforce diversity, and financial instability (Hees, Rottinghaus, Briddick & Conrath, 2012). Super’s Career Development Theory recognizes the necessity for students to be ready to adapt to various successes and challenges in today’s work environment (Super, 1957; Savickas, & Super, 1996). Super formulated his theory through various segments of vocational behavior. This resulted in a “segmented theory” that is actually a loosely unified set of theories, each dealing with specific aspects of vocational development (Brown & Lent, 2005). Savickas (1997) communicated that Super viewed careers and their life course through three major vantage points: the developmental, self, and contextual perspectives. These perspectives combined to form the life-span, life-space approach to careers. The life-span, life-space theory of careers evolved over 40 years as Super and those with whom he worked refined the theory
(Super, Savickas, & Super, 1996). The original Career Development Theory evolved to Developmental Self-Concept Theory and then to the current Life-Span, Life-Space Theory. Super’s Career Development Theory aligns with efforts of twelfth-grade students as they crystallize a decision to pursue a career in nursing and develop their self-concept. For these students, crystallizing this decision and developing self-concept will help to affirm their educational path. This plan aligns with Super’s original Career Development Theory segment where individuals construct their work lives, specify predictable tasks, and exercise coping behaviors as they explore aspects of a career.

**Crystallization and Self-Concept**

At the center of the career decision-making process, especially for students enrolled in career technical education programming, is the aspect of career exploration, specifically crystallization within the exploration phase of Super’s theory. Exploration activities allow students the opportunity to gather information about themselves and their environment. Exploration activities, which mirror real-life, career-oriented scenarios, influence the student’s career decision-making process and ultimately lead a student to pursue, or not pursue, a nursing career following high school. Career exploration experiences provide students an opportunity to collect and analyze career-related information in order to enhance their career management process (Esters, 2008). Furthermore, participation in exploratory activities such as clinical rotations, academic and laboratory coursework, and student organization activities within a Nursing Preparation course promotes an understanding of self and the environment that enables people to develop realistic career goals and plans (Sugalski & Greenhaus, 1986). Super stated that the main task within the exploration stage is to crystallize or specify occupational preferences. Super proposed that within the exploration stage individuals
approximately 18 to 21 years of age begin to crystallize a decision, transitioning from a broad occupational preference to a more specific choice. Through career exploration, students may make an effort to narrow career choice and then crystallize the preference by choosing to further their educational training in order to work in a related career field. Super indicated that individuals in their late teens and early twenties should be moving from the exploratory stage to the establishment stage in their career development, with career choices becoming increasingly clear and focused. Sharf (2006) further exemplified this point, communicating that although exploration occurs at all ages and stages of development, it is considered to be most prominent during the time in which students exit high school and enter a postsecondary experience (cited in Esters, 2008, p. 23).

Another important aspect of the exploration stage is to affirm one’s self-concept throughout the career decision-making process. Through exploration of a given career, students have the opportunity to increase the clarity of their self-definition. Super focused heavily on the role of self-concept. From his perspective, one’s view of self plays a role in the selection of occupation including the selection, combination, and interaction of life roles and the achievement of critical developmental tasks (Harris-Bowlsbey, Krumboltz & Holland, 2001). Starishevsky & Matlin (1968) explained that choosing an occupation is an expression of one’s self concept which is formulated and reformulated throughout the life stages. By an individual comparing his or her experience to others’, including the ability to fulfill specific responsibilities related to an occupation, one is able to relate his or her self-concept with occupational choice. An example of this would be for a student to participate with a clinical rotation in a health care setting. One would, through this experience, have the opportunity to fulfill tasks and therefore determine, based on one’s ability and self-concept to do so, compare one’s ability to others’ as students performed
duties related to this occupation. For example, one student enrolled in the LISD Nursing Preparation course planned to enroll in a premedical program following his twelfth-grade year. During the scheduled clinical experience at the local hospital, this student, following the surgical rotation, determined that although he will continue to pursue a health sciences-related degree, he will not choose a path that focuses on surgery (Personal communication, November 23, 2015). At the beginning of the course, he perceived he would be able fulfill all tasks associated with being a nurse. Rather, through this relevant experience he learned what he was truly capable of doing. This is a vital aspect of vocational development within the career decision-making process, so critical that Super suggested that translating self-concepts into occupational terms is one of the most important tasks of the exploration stage (Jordan, 1974). Brown and Lent (2005) stated that Super’s theory explains occupational aspirations from a developmental perspective and sees aspirations as a reflection of occupational self-concept.

**Indecisiveness, Career Exploration, and Crystallization**

Through a year-long CTE experience, a student’s level of certainty regarding a career, and the opportunity to affirm one’s self-concept, provides an opportunity to improve the level of career decisiveness at a critical time. Students enrolled have the opportunity to make an informed decision prior to embarking on a postsecondary journey which, if not chosen wisely, could lead to degree attainment with little to no purpose or direction. This state of uncertainty, years after high school, occurs when, potentially, the student’s self-concept and crystallized choice of career from high school could have been determined with a great sense of certainty prior to graduation (Schneider, 2009). Students’ career decisiveness aligns with their level of certainty regarding the choice to pursue or not pursue a given career (Osipow, Carnet, & Barak, 1976). As students
progress through a year-long CTE course of study, various academic experiences such as clinical rotations, dual enrollment courses, participation with career and technical student organizations, and relevant laboratory activities encourage students, specifically during the exploration phase, to explore, inform, and improve autonomy in career decision-making (Guranda & Draghici, 2011). Stumpf argues that career-enhancing behaviors such as where one explores, how one explores, how much one explores, and what topics one explores define the process of exploration (as cited in Esters, 2008, p. 23).

However, it is vital to determine, through qualitative inquiry, what specific experiences throughout a Nursing Preparation CTE course of study are communicated by twelfth-grade students as having influenced crystallization throughout their year-long career decision-making process. Blustein (1989) states that the social psychological literature has indicated that individuals develop their own theories to explain their own behavior from a social context. Although there are numerous aspects of one’s life that affect the career-decision making process, this study is intended to explore the specific experiences that, regardless of, or in conjunction with, factors that affect the life of a teenager, influence the decision to pursue a career in nursing.

Hees, Rottinghaus, Briddick and Conrath (2012) note studies (Blustein, Juntunen, & Worthington, 2000; Ebberwein, Kriestok, Ulven, & Prosser, 2004) which have researched the transition from school to work for youth today. Researchers such as Blustein (2006) offer strategies, supports, and interventions for workers who are displaced because of needs in today’s economy. However, Super indicated that throughout the exploration phase students have the opportunity to explore and examine career opportunities before they exit one educational arena and enter another. Furthermore, and just as important, students may also, through relevant educational
experiences, choose an appropriate profession so they have a greater chance to be employed, productive members of society rather than displaced employees. The intent of this study is to discover and then replicate specific experiences, both academic and technical in nature, with other CTE nursing programs so that additional youth can experience influential activities in order to make informed decisions much earlier in the exploration stage. Career theorists have placed limited emphasis on childhood career development, although it is generally acknowledged by Super (1990) that crucial career-related concepts and attitudes are formed during this stage. Empirical literature on childhood career development is sparse.

One aim of a similar study by Germeij, Verschueren, and Soenens (2006) is to examine whether indecisiveness has an effect on adolescents’ developmental progress in decisional tasks during the career decision-making process. It was determined that without proper career exploration activities students are often ill-prepared for a postsecondary experience and may choose a field of activity which may or may or may not be suited for them. Career decision-making must begin earlier in order for a student to learn more about self-concept and the world of work the student will enter (Guranda & Draghici, 2011). Ciccocioppo, Stewin, Madill, Montgomerie, Tovell, Armour, and Fitzsimmons (2002) conducted focus groups where the experiences of thirteen female students were examined to determine factors that affect the career decision-making of young women in undergraduate science, engineering, and technology programs. The study determined that there are many factors involved in career choice. The environment; the influence of parents, teachers, and peers; sex-role socialization; and heredity combine to shape attitudes toward certain occupational choices. The researchers stated that an examination of the themes and issues which play a paramount role in young women’s
decisions to pursue a career in the sciences and engineering could lead to a better understanding of how to encourage more young women to pursue these fields, and to determine what obstacles exist and the options to overcome them. The same could be said about twelfth-grade nursing preparation students as they affirm their decision to pursue or not pursue a nursing career.

**Exploration**

How students adapt their career decision-making process, and the exploration activities that influence the decision, represents Super’s Career Development Theory. Super provides a relevant theoretical framework for exploring and understanding emerging adults in transition. Super’s Career Development Theory can be used for this study as it was for the basis of the study of young women’s career choices in science-related fields. During the exploration stage from high school to university, students enrolled in CTE programs are provided opportunities to experience what a nursing career may entail. Educational influences were shown to have a major impact on participants’ decisions to pursue a science-related field in a study conducted by Ciccocioppo, et al. (2002). These researchers as well as Super (1990) and Krumboltz, Becker-Haven, & Burnett (1979) emphasized the importance of environmental influences and their effect on a student’s career development. Results of the study support Super’s theory of career development, where students stated they value hands-on approaches to learning. In fact, many participants in the study indicated wanting more hands-on experiences. Opportunities for students to immerse themselves with experiences that illustrate facets of nursing empower each student to make a more informed decision. But what are the influential experiences for twelfth-grade nursing prep students that influence the developmental tasks of crystallizing, specifying, and implementing a choice of career?
What influences are at the core of the student’s decision to indeed embark or adjust the path towards a postsecondary nursing experience? Clinical rotations, lab exercises, academic dual enrollment coursework, involvement with a career technical student organization, and job shadowing are a few examples of relevant hands-on opportunities students participate with as they progress through a year-long course of study (Lewis & Kosine, 2008). Furthermore, these are means by which students gain practical and tangible information about a career. Experiences such as these present a more accurate description of the day-to-day responsibilities of being a nurse. Through this study I intend to find out what experiences and opportunities indeed influence students’ developmental tasks as they determine whether or not to pursue a career.

Examining specific exploration activities throughout a Nursing Prep CTE program may lead researchers to better understand what specific experiences help students master the developmental tasks leading to this determination. The study conducted by Ciccocioppo, et al. (2002) revealed many factors--important to women as they progressed through the career decision-making process--not prominent in literature. During the exploration stage students are learning more about self-concept and crystallizing their decision whether or not to pursue a nursing career at a time critical for them to explore occupational options. It is noted that the transition process between high school and postsecondary education is a difficult one. Erikson (1963) states that it is primarily the inability of a student to settle on an occupational identity which disturbs young people.

**Self-Concept**

The process of determining whether or not to pursue a given career can lead to a level of career decisiveness. Jordaan (1983) states that the level of career decisiveness regarding vocational behavior can range from “age-appropriate indecisiveness to chronic
difficulty in making important life decisions in a responsible and rational fashion” (p. 107). As a recent trend in employment statistics among the baby boomer generation suggests, young adults are changing jobs more frequently in their earlier years, an observation that is particularly evident among young adults who have more education (Bureau of Labor Statistics, 2015).

Brown and Brooks (1996) offer a statement regarding the career decision-making process of adolescents: “Through broad exploration of the occupations in this group, individuals eventually complete the task of specifying an occupation choice by translating the privately experienced occupational self-concept into educational/vocational choices” (p. 132). Behaviors that students exhibit through academic and technical experiences during their year-long Nursing Prep CTE course begin to define their self-concept. Nursing Prep students have an opportunity to immerse themselves in the culture of the profession in numerous ways. They have the opportunity to not only observe roles and situations, but participate with the opportunities and challenges presented to nurses. A social cognitive view of this behavior, and these specific experiences, aligns well with Super’s (1957) existing vocational psychological theory to provide a framework through the self-concept system of the career decision-making process of a twelfth-grade student. Guranda and Draghici (2011) conducted research to determine the characteristics of adolescents related to their career decision-making process. Additional research occurred to examine the indecisiveness and associated career choice anxiety that students encountered throughout the career decision-making process. Research related to the career decision-making process of adolescent females and young women in non-traditional career paths (Ciccocioppo, et al., 2002) and a study to determine the extent to which the career exploration process influences the
level of certainty specific to agriculture students (Esters, 2008) each explores the career development experience of youth.

The self-concept theory in vocational psychology became prominent with Super’s (1957) work. According to Super, individuals who make career decisions are translating their ideas about themselves into occupational terms. Super’s framework aligns with students who have the opportunity to assess both their own traits and attributes as well as the characteristics required to work within a nursing occupation. Ideally, students will match their own attributes with characteristics of a nursing career, formulate preferences, and make informed decisions regarding a postsecondary experience in order to secure suitable employment (Super, 1982).

Jordaan (1983) determined that career choice correlated with career decisiveness and vocational maturity while Blustein (1985) stated that the attitudinal component of vocational maturity represents individuals’ self-reports of their career planning and career exploration activities. Furthermore, Super and Nevill (1984) and Jordaan (1974) argued that clarity and stability of the self-concept system is related to vocational maturity. Super’s work (1957; 1984) illustrates that clarity and consistency of the self-concept system is viewed as an important feature in the career development of young adults. In particular, Super and his students (1982) demonstrated that becoming knowledgeable about one’s own traits, attributes, attitudes, and values is a significant factor in the effective implementation of career choices. The results from this study support the belief that individuals who define themselves consistently with their internal traits and dispositions tend to demonstrate high levels of the cognitive components of vocational maturity. This finding suggests a connection between a crystallized self-concept system and the attainment of occupational information and decision-making skills. According to
Blustein, “It may be that individuals with a clarified and consistent self-concept system are able to relate themselves to the occupational world with greater accuracy due to their ability to know about themselves and their attributes” (1985, p. 101).

But due to what specific educational experiences? Social cognition literature, such as Tiedeman and Miller-Tiedeman (1984), Snyder and Campbell (1982), Gurney (1981), Kleinke (1978), and Harren (1979), indicates that students who exercise a high degree of locus of control believe in their self-concept. Locus of control is defined as the degree to which one feels control over one’s present and future. Students choosing to enroll in this year-long course of study take an active role in their vocational behavior, which may increase their locus of control. Faqua and Hartman (1983), Harren (1979), and Super and Nevill (1984) indicate that students’ accurate knowledge about their own attitudes and traits, along with a rational and consistent approach to exploring career options, is an important antecedent to effective career development.

**Crystallized Self-Concept and Career Decisiveness**

“A crystallized self-concept system has an empirical as well as theoretical connection to vocational maturity” (Blustein, 1985, pp. 101-102). Students who choose to enroll in a Nursing Prep CTE course of study engage in a variety of experiences that allow them to exhibit locus of control, improve a rational decision-making style, and improve social cognition. Social cognition refers to processes by which individuals attend, perceive, categorize, and assess events that involve interactions between themselves, others, and the environment (Landman & Manis, 1983). Tiedeman and Miller-Tiedeman (1984) define effective career-decision makers as those who are “making their lives happen rather than sleeping and letting them drift by” (p. 309).
Super (1985) developed a self-concept system which affects career decisiveness, based in part on how individuals view themselves and indicates that self-concept is the mediating factor between external events and their behavior (p. 21). In fact, career decisiveness was found to have a relatively strong relationship with vocational maturity. It is suggested that one aspect of a student’s level of career decisiveness is related to the individual’s level of career development. This relationship between career decisiveness, vocational maturity, and an individual’s level of career development confirms Super’s (1957) work along with the view of Osipow et al. (1980) that identifies clarity of career choice as a manifestation of vocational maturity (p. 106). These findings suggest it is possible, at least for those enrolled within a Nursing Prep CTE program, to crystallize and specify their occupational preference with a greater degree of career decisiveness and within the early portion of the exploration stage.

In the past, vocational psychologists have studied how specific career decisions are made, a process that takes into account the exploration of occupational options as career plans are developed (Blustein, 1985, p. 14). The self-concept constructs have been utilized to define what occurred to illustrate career-decision making models and styles. Tiedeman and Miller-Tiedeman (1984) indicated that students need to adapt to situational factors for effective career decision-making to occur as they use a problem-solving approach that begins with exploration and crystallization and then proceed to choice and clarification. Harren (1979, 1980) developed a decision-making model which measures how individuals approach career decisions. He identified three primary styles which include rational, intuitive, and dependent. Students enrolled in Nursing Prep may tend to subscribe to a rational approach as they have, thus far, followed a program of study through a logical and systematic approach. Prerequisites to enroll in the program suggest
a consistent pathway which students choose to best determine if nursing is an appropriate career choice.

Students have the opportunity to compare their own talents and ability with others’ as they progress through a career exploration course their senior year. Students in high school may be more inclined to compare their ability with others’ rather than measuring their own self-concept. Measuring self-concept requires a level of vocational maturity which may or may not be present during a student’s senior year. “Vocational maturity is defined as the readiness to cope with the specific tasks that are associated with an individual’s stage in life” (Thompson et al., 1981). In the career development theory that supports vocational maturity research, explicit references are made to specific self-concept dimensions. For example, Jordaan (1974) indicated that increasing the clarity of one’s self-definition is a critical aspect of career development during the growth stage, while Super (1984) pointed that a consistent self-concept system is associated with vocational maturity (p. 126).

Faqua and Hartman (1983) and Tiedeman and Miller-Tiedeman (1984) refer to developmental indecisiveness as an alignment with one’s lack of knowledge about interests and abilities, specifically related to an occupation. Furthermore, as an individual progresses, age and attitude become increasingly differentiated between the individual and the environment facilitated throughout the career development process. Tiedeman and Miller-Tiedeman (1984) emphasize the important integration of diverse studies and theoretical positions with aspects of career development such as vocational maturity, career decisiveness, and decision-making styles, and state that a rational and consistent approach to exploring career options leads to effective career development. Students engaged in the CTE nursing preparation course gain knowledge and experiences
specifically related to this occupation. Finally, Tiedeman and Miller-Tiedeman (1984) indicate that empirical investigations related to student experiences may identify characteristics of the self-concept system that facilitate productive vocational behavior, furthering the understanding of career development.

**Career Development Theory (Super)**

Super’s theory, as it aligns with this study of career exploration activities experienced by twelfth-grade nursing preparation students, is supported by various vocational psychologists. Jones and Chenery (1980), Holland and Holland (1977), Osipow, Carney, and Barak (1976) have demonstrated empirically that career decisiveness is a multidimensional construct that measures an individual’s degree of certainty or clarity in expressed career choices. Faqua and Hartman (1983) further defined career decisiveness by illustrating three specific categories, each of which defines aspects of this study. The first of three categories, developmental indecisiveness, refers to individuals whose career indecisiveness is appropriate to their age and is characterized by a lack of knowledge about their interests and abilities as well as about the world of work. For instance, most seniors in high school lack the general knowledge associated with self-concept and specific aspects of the career which they are interested in pursuing. Often, students who have not experienced career exploration activities while in high school choose to pursue a career, embark on a postsecondary experience, and only then, in the first year of college, seek career interventions and career exploration classes. Gordon (1981) integrates the work of Perry (1970), Super (1957), and Tiedeman and O’Hara (1963) to describe the age-appropriate or developmental category of career indecisiveness for most individuals while beginning college.

Blustein (1985) best describes the study:
There are a number of experiments that can be devised to test and expand the theoretical connections between social cognition and vocational behavior. For example, in order to assess the influence of social cognitive factors in an actual vocational task, subjects can be exposed to a number of different career planning activities in which their exploratory behaviors can be measured. Their attitudes towards regarding their exploration tasks, their memory of social cues, and their attitudes regarding the exploration tasks, can be used to provide a means for understanding the role of social cognitive factors within the context of other outcome variables. (p. 120)

This study may determine that the interventions and career exploration activities, at least for twelfth-grade students enrolled in a Nursing Prep CTE course, can influence the choice to pursue or not pursue a career in nursing before vital commitments are made.

**Characteristics of Career Technical Education**

Career and Technical Education continues to reimage itself as a means to prepare students for postsecondary options. Then Secretary of Education Arne Duncan (2012) communicated the Obama Administration’s proposal for the reauthorization process of Perkins IV legislation indicating a new focus on preparing students for various postsecondary educational opportunities.

The 1984 Carl D. Perkins Vocational and Technical Act focused efforts, through career and technical education, on those who did not necessarily plan to, or were academically unable to, attend postsecondary education. The Perkins Act has been reauthorized three times. The latest revision and reauthorization included language to increase the connection between secondary and postsecondary education, including the use of rigorous programs of study. Legislators and educators, through the reauthorization
of Perkins IV, are initiating educational programming as a viable means for many students to further prepare to be career- and college-ready.

Today, CTE has made great strides to position itself as a viable college and career preparatory option for students based, in part, to the Carl D. Perkins Act and the Tech Prep program. The Carl D. Perkins Act (1990) set aside funds to create innovative secondary-to-postsecondary partnerships. Academic and technical proficiency was the focus and prompted thousands of Tech Prep articulation agreements. Tech Prep legislation was amended in 1992 permitting students to begin Tech Prep programming as early as ninth grade. Further modification to Perkins legislation, Perkins III in 1998, emphasized postsecondary involvement as raised academic standards were a focus of legislative efforts (Hull, 2005, p. 11). Many current educational reform efforts involving CTE have benefitted from various Tech Prep initiatives.

The Tech Prep program authorized by Perkins legislation and funded in 1991 focused on having secondary and postsecondary leadership strengthen alignment through CTE programs. Tech Prep prompted secondary and postsecondary educational partners to link successful completion of a CTE program by a high school student with a seamless transition to a postsecondary institution for attainment of a certificate or degree. Tech Prep and Perkins legislation evolved throughout the various iterations, further encouraging academic and technical skill alignment in order to provide a path for students to continue their career-oriented education beyond high school. According to the National Center for Educational Statistics (NCES), 2004 high school graduates who were also classified as 3-credit concentrators compared relatively well to their non-CTE peers with respect to attainment of a postsecondary credential 8 years following completion of high school. A 3-credit concentrator is defined as a graduate who earned at least 3 credits
in one of twelve occupation areas. In 2012, 8 years after graduating from high school, the percentage of students classified as 3-credit CTE concentrators was relatively similar to the percentages of all public high school graduates. Student percentages were illustrated with the following categories: Never enrolled (17.6 percent/10.7 percent), Enrolled but no credential (32.5 percent/32.4 percent), Total, any credential (50.0 percent/56.9 percent), Bachelor’s or higher degree (26.8 percent/37.3 percent), Total, sub-baccalaureate (23.1 percent/19.6 percent), Certificate (12.5 percent/10.0 percent), and Associate’s degree (10.6 percent/9.7 percent).

In Michigan, based on the Perkins Act of 2006, local and state educational organizations that offer CTE programs and receive funding to support these programs are required to collect and submit data regarding high school graduates. Specifically, the data is collected through correspondence with high school graduates classified as concentrators within state-approved CTE programs. In Michigan, CTE students classified as concentrators have earned at least a 2.0 grade point average and completed at least 7 of the twelve segments within a CTE program (MDE OCTE, 2013). The follow-up survey occurs with former secondary CTE students in the third quarter following the program year in which students graduated high school. The data is submitted to the Michigan Department of Education (MDE) Office of Career and Technical Education (OCTE). The information is compiled by MDE OCTE and submitted to the U.S. Department of Education as an accountability system based on performance standards. In addition to its use for performance accountability, the data is also available for use by CTE administrators so adequate planning and preparation can occur to improve CTE core performance indicators.
The 2010 high school graduates classified as CTE completers throughout the state of Michigan made decisions to enter various colleges and careers following their tenure in high school. Follow-up survey data collected in 2011 illustrated that 72.3% of eleventh and twelfth-grade completers from a CTE program in Michigan graduated from high school and attained viable part-time and full-time employment. There were 22,149 eleventh and twelfth-grade completers who either entered a business, trade, or career center, a community college, a college or university, or the military. Further, 46.6% of the 22,149 students classified as eleventh- and twelfth-grade completers enrolled in a community college and 47% enrolled in a college or university (Michigan Department of Education, OCTE, 2011).

Students who complete a CTE program their twelfth-grade year choose to either pursue or not pursue the occupation explored through the CTE program following graduation. This vital determination early in Super’s (1990) exploration stage impacts the career development process for students as they begin a postsecondary experience. Super’s exploration stage focused on the fluid continuous process a Nursing Preparation student in a CTE setting experiences. This process allows the student to narrow choices through relevant experiences. This eventually leads the student to choose, or not choose, to pursue further training or education pertinent to nursing. Students enrolled in Nursing Preparation have the opportunity to participate in a variety of career exploration activities where behaviors can be observed, studied, and measured. Although students enrolled in secondary occupational CTE programs declined slightly from 1990 to 2009, enrollment in health science-related CTE occupational areas increased 222 percent (National Assessment of Career and Technical Education, 2013).
The career decision-making process which furthers the crystallization process involves a series of career exploration activities and events where students assess their self-concept in the context of this specific career. The research related to social cognition and vocational behavior for young adults is limited. Therefore, it is vital to determine, duplicate, and expand the specific influential career exploration activities that students communicate crystallize the choice to pursue nursing as a career and define their self-concept.
CHAPTER III

METHODOLOGY

Researchers of career development and choice theories have studied individuals’ career exploration activities as they advance through various stages of career development. However, the research does not address how specific expectations and experiences influence the career decision-making process of students who engage in a CTE program, nursing preparation for example. Deductive content analysis will be used based on previous theoretical knowledge, specifically Super’s Career Development Theory, as participants progress through this year-long experience. Data analysis will also be explored inductively as categories and themes emerge to guide the ongoing data collection. As a qualitative researcher I will use “an emerging qualitative approach to inquiry, to collect data in a natural setting sensitive to the people and places under study, and data analysis that is inductive and establishes patterns or themes” (Creswell, 2007, p. 37). We know much about the career decision-making process and little about educational experiences which influence a decision to pursue a nursing career after completing a career exploration experience within the realm of CTE. It is vital to explore this lived experience, therefore, through the lens of students seeking this year-long pursuit of crystallization, specification, and implementation of a viable career whereby the decision is based on relevant, real-world CTE experiences aligned with the career of nursing.
Overview of Methods and Rationale

The overarching research question is, “What educational experiences influence a twelfth-grade CTE student’s decision to pursue a career in nursing?” This central question leads to sub-questions that guide the study with regard to aspects of Super’s (1990) Theory of Career Development. As Creswell (2007) notes, “In a qualitative study, one can write sub-questions that address issues on the topic being explored and use terms that encode the work within the approach. Also, procedural questions can be used to foreshadow the steps in the procedures of data collection, analysis, and narrative format construction” (p. 113). Sub-questions, both issue-based and procedural in nature, will be used to further understand students’ experiences which influence the career decision-making process. Sub-questions include:

1. What experiences through a twelfth-grade student’s Nursing Preparation CTE experience prompt the crystallizing process to pursue a career in nursing?
2. What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence specification to pursue a career in nursing?
3. What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence implementation to pursue a career in nursing?

Research Design

The literature and study is viewed through sub-aspects of Super’s Theory of Career Development, specifically the exploration stage (Creswell, 2009). The construct of this study defines the career exploration experience of twelfth-grade students as they progress through a Nursing Preparation CTE course. I intend to explore how specific student experiences align with aspects of theory. Furthermore, the career development and decision process will be documented twice throughout the year-long course as
reasoning is communicated by participants. Capturing the essence of the experience as students gain additional exposure to career-related technical, academic, and leadership opportunities will more deeply enrich the qualitative exploration. Students have the opportunity to exercise various aspects of career development, and subsequently to determine whether or not a career in nursing is viable and realistic. This study will seek to understand how student experiences connect and align with Super’s Theory of Career Development, specifically how experiences influence developmental tasks within the career exploration phase, ultimately leading to a decision whether or not to pursue a given career. “Career exploration refers to all of the activities that individuals engage in for the purpose of promoting career development, choice, or adjustment” (Estes, 2008, p. 23).

**Setting/Site Selection**

This study is to occur at the Lenawee Intermediate School District (LISD) TECH Center, where a nursing preparation course resides. I have chosen this location for the study due to the fact that I am familiar with the setting, the curriculum delivered through the course, and the relevant educational experiences this course offers to twelfth-grade students who choose to explore a career in nursing. I am familiar with the LISD TECH Center, as I served as principal throughout the years of 2007-2012. My tenure at the LISD concluded at the end of the 2011-12 school year, after I was hired as Madison School District’s Associate Superintendent.

I discussed aspects of this study with the LISD Superintendent, including the purposeful selection of this site for researching the lived experience of students enrolled in the LISD Nursing Preparation CTE program. He, as a gatekeeper of this educational organization, has the authority to provide access to the site and allow research to be
conducted at this location. Therefore, he will receive a research proposal outlining specific facets of the research to be conducted on-site (Creswell, 2009).

**Description of LISD TECH Center**

The LISD is located in Southeast Michigan. Lenawee County is a rural community with a few small cities located sporadically throughout. The majority of the county residents are working-class people who have strong family traditions. The LISD provides education and services for students in enrolled in Lenawee County Schools. The LISD serves eleven local school districts whose total student population is approximately 15,600. The districts served are Addison, Adrian, Britton-Deerfield, Clinton, Hudson, Madison, Morenci, Onsted, Sand Creek, and Tecumseh. The LISD has been supporting Lenawee County for over 40 years.

The central delivery mechanism for career and technical education in the county is the LISD TECH Center. After an extensive study in 1965, a recommendation was made to establish a vocational-technical center in Lenawee County. The Lenawee Area Vocational-Technical Education Center officially opened in the fall of 1970 and operated on a “shared time” concept. Currently, as in the past, students, mostly eleventh and twelfth-graders, attend the LISD TECH Center for half of their school day. Transportation is provided by the home district. This plan allows students to graduate from their home high schools while attending courses at the LISD TECH Center. Students enroll with assistance of their local high school guidance counselors, and academic credit for courses taken at the LISD TECH Center is granted by the local district. The LISD TECH Center is, in effect, the career and technical education department for all eleven Lenawee County public high schools, Lenawee Christian
School, and home schooled students. Approximately 40% of Lenawee County graduates have attended the LISD TECH Center since its opening in 1970.

The LISD TECH Center officially changed its name from the Lenawee Area Vocational-Technical Education Center (Vo-Tech) to the LISD TECH Center in spring 2008 to reflect the direction of career and technical education. Career and technical education has evolved from preparing students for paid or unpaid employment, or for additional preparation for a career requiring other than a baccalaureate or advanced degree, to delivering increased academic instruction that prepares students for postsecondary certificates or degrees as well as high-skill, high-wage, and high-demand occupations.

Currently, the LISD TECH Center serves approximately nine hundred students on campus, provides career preparation services in all local districts, coordinates Work-based Learning experiences, and delivers Adult Learning Services in a variety of areas. There are 24 CTE programs offered at the LISD TECH Center. In addition, hundreds of students, kindergarten through tenth grade, attend career exploration camps throughout the year, with most camp opportunities occurring throughout the summer.

**Description of CTE Program**

The Lenawee Intermediate School District TECH Center Nursing Preparation program, consistent with all LISD TECH Center CTE programs, has three primary objectives which have been adopted from the Michigan Department of Labor and Economic Growth Office of Career and Technical Preparation.

The three primary objectives are to:

- provide students the specific skills needed for job-entry positions now and broad transferable skills, allowing students further employment/education flexibility;
-acquire an awareness of the structure and future trends within high-skill, high-wage industries to increase students’ options for occupational choice in the pursuit of a career, as well as providing the requisite knowledge and skills for continued education and training;

-provide both school- and work-based learning experiences in order to bridge the gap between education and the world of work. (Michigan Department of Labor & Economic Growth Office of Career and Technical Preparation, 2004)

To accomplish these primary objectives the LISD facilitates several strategies to support students who choose this year-long career exploration experience. The program's objective is to provide rigorous instruction to help high school seniors build a strong academic foundation to meet the challenging nursing school entry requirements. Core academic content in the areas of science, English Language Arts, and mathematics is aligned with technical skill attainment. In addition, students have the opportunity to participate with dual enrollment courses specifically focused on academic preparation for nursing. To complement the academic preparation, students are able to participate in leadership competitions and activities focused on the health sciences through Health Occupations Students of America (HOSA), a career technical student organization. Finally, clinical rotations and relevant work-related experiences occur and are aligned with requirements to attain Certified Nursing Assistant certification.

**Participants**

Demographic characteristics of students enrolled in this course vary from year to year. Students from the eleven local school districts and one parochial school as well as home schooled students are eligible to apply for enrollment once they successfully
complete an LISD health science-related course their junior year. The health science-related courses offered at the LISD TECH Center include Emergency Medical Technician (EMT), Health Care Careers, Dental Aide, and Careers in Biochemical Technology. Students who have not completed an LISD TECH Center health science-related course their eleventh grade year are eligible for the nursing preparation course if they complete specific coursework and also receive a recommendation from their local school district guidance counselor. As of May 5, 2016, 33 students enrolled in the LISD TECH Center Nursing Preparation program for the 2016-17 school year.

The students selected to participate with the study will be a random sampling of all eligible twelfth-grade nursing preparation students who have attained parental consent and express interest in learning more about the study. All students who enroll in the program for the 2016-17 school year will be notified of the opportunity to participate with the study when they arrive to school in September. I will provide notification through a letter provided to each student and their parents or guardians. The letter will include a description of the study, the type of questions to be asked, timeframe in which the study will occur, and will invite participation and provide information regarding the rights of research participants. Parental consent will be obtained for the students who express interest prior to random selection taking place. Only after parental consent is obtained will the random sample technique be utilized to provide each individual an equal probability of being selected out of those expressing interest. The eight randomly selected to participate with the study will serve to provide perspectives of their experience. If any of the eight students choose not to participate with the study, another student with parental consent will be asked if they are interested in learning more about participating with the study.
The goal of this study is not to generalize to a population; rather, it is to obtain insights to maximize understanding. Therefore, eight participants will be sufficient where the goal is to understand the essence of an experience from a homogeneous sample (Onwuegbuzie & Leech, 2007). By my randomly selecting participants, each individual has an equal probability of being selected from those expressing interest in participating with study (Creswell, 2009). Through their voices, I will have the opportunity to understand the student experience.

Students enrolled in this course tend to have similar academic abilities since academic prerequisites for the program are established. Therefore, a relatively consistent and homogenous level of student aptitude is present year after year. “The sample of interviewees should be fairly homogenous and share critical similarities related to the research question” (DiCicco-Bloom & Crabtree, 2006, p. 314). Demographic characteristics of students enrolled in this course do change to some extent from year to year and, unlike the academic standards and requirements of students enrolled in this CTE program, may not be as consistent. The eight students randomly selected to participate, therefore, will provide the best opportunity to gather data, through interviews twice throughout the school year, regarding the career decision-making process.

Students enrolled in the LISD TECH Center Nursing Preparation program have all either successfully completed a health science-related CTE course their eleventh-grade year or successfully completed rigorous academic coursework leading to a recommendation from their guidance counselor. Therefore, participants will have relatively similar academic experiences leading up to enrollment in the nursing preparation course. Although greater diversity among the population might lead to a broader audience, this study is intended to provide rich data forming common themes.
This may best occur through a random sample of individuals who experience similar and consistent academic, technical, and leadership opportunities.

**Data Collection Procedures**

Semi-structured interviews will occur midway through the course (January) and near the end of the course (May). Each student will be interviewed by me and one LISD Career Preparation Services (CPS) Coordinator. Students are familiar with the two LISD TECH Center CPS Coordinators as, throughout the year, they work collaboratively with students to fulfill aspects of postsecondary planning. The CPS Coordinator and I will together conduct all sixteen interviews. Creswell (2009) suggests an interview protocol be observed. Therefore, specific information will be documented regarding the date, location, researchers, and participants. In addition, instructions will be followed so that a standard procedure is used by the CPS Coordinator and me for each of the sixteen interviews. This method of data collection through interviewing participants is intended to attain the students’ perspective as it unfolds through their view (Marshall & Rossman, 2006).

Eight students will be interviewed and their responses will be utilized to better understand the career decision-making process of twelfth-grade students enrolled in a Nursing Preparation CTE program. The purpose of this study is to qualitatively explore, through the lived experience of high school students, how career exploration through a nursing preparation CTE program influences students’ career development tasks defined by Super (1990). A continuous process of unwrapping the experience with each interview session may provide a deeper level of insight, understanding, and explanation of the students’ lived experience. Qualitative exploration is the methodology intended to explain instead of measure, to seek meaning of a lived experience instead of quantifying,
and to understand instead of generalizing (Zambo, 2004). Qualitative studies use theories in several ways; in this case Super’s theory is a broad explanation for behavior and attitudes of secondary students as they determine a career (Creswell, 2009). Semi-structured one-hour interviews will take place during and near the end of their educational experience. Creswell (2009) states, “Qualitative research is interpretive research, with the inquirer typically involved in a sustained and intensive experience with participants” (p. 177). Interviews will be audiotaped and then transcribed. Finally, transcriptions of the interviews will be analyzed to identify themes and to better understand the alignment of identified themes with career development and choice theory, specifically the exploration stage.

As a qualitative researcher, I will prioritize conveying a respectful attitude through the interview process. The interviews with the twelfth-grade CTE students enrolled in a nursing preparation program will be treated as conversations where the participants’ views are respected as valuable and useful (Marshall & Rossman, 2006). “Unlike the highly structured survey interviews and questionnaires used in epidemiology and most health services research, we use less structured interview strategies in which the person interviewed is more a participant in meaning making than a conduit from which information is retrieved” (DiCicco-Bloom & Crabtree, 2006, p. 314). This year of career exploration is best explored through the lens of the student, whose lived academic, technical, and environmental experiences influence the developmental tasks and decision-making process to ultimately pursue, or not pursue, a career in nursing. While some research is designed to test an a priori hypothesis, this study seeks to better understand unknown and undetermined influential experiences. It is the intent to discover themes through this study, subsequently contributing to a body of knowledge and literature.
Conceptual and theoretical frameworks based on the meanings that CTE experiences hold for the participants will be utilized (DiCicco-Bloom & Crabtree, 2006).

Marshall and Rossman (2006) describe qualitative, in-depth interviews as conversations used by researchers to explore a few broad topics in order for the participant to frame and structure their view of the experience, noting, “An interview yields data quickly” (p. 101). Therefore, each session will be recorded through an audio recording to best capture responses accurately and, at the same time, allow personal interaction to occur between researcher and participant. I believe it is important to capture the mannerisms of the participants while they describe their experiences influencing the career decision-making process. I will make notations regarding participants’ behavior and mannerisms that illustrate feeling or emotion associated with verbal response to interview questions. According to Marshall and Rossman (2006), visual cues are not sufficient to gather important paralinguistic clues about meaning. However, observing visual cues while listening to verbal feedback may also provide understanding of not only what is being said but also the manner in which an experience is described. For instance, as a student answers an interview question he or she may express interest or excitement regarding a particular experience by leaning forward or using hand gestures as the experience is communicated.

Each student will be encouraged to provide detailed information regarding unique experiences, and subsequently may communicate data which is not applicable to the research questions included in this study. The students will have the latitude to provide as much detail as they wish; however, great time and detail will be taken to vet the information recorded. “When the researcher is using in-depth interviews as the sole way of gathering data, she should have demonstrated through the conceptual framework that
the purpose of the study is to uncover and describe the participants’ perspectives on events--that is, that the subjective view is what matters” (Marshall & Rossman, 2006, p. 102).

**Data Analysis**

Super’s Theory of Career Development is the basis of this study. The qualitative approach of this study utilizes both an inductive and deductive approach to analyze data. Open-ended data collection will be documented through audio transcripts and hand written notes as I begin the process to analyze content provided by participants. Transcripts and notes will provide raw data providing a descriptive record, not explanations (Pope, Ziebland & Mays, 2000). Deductive content analysis will be used based on previous theoretical knowledge, specifically Super’s Theory of Career Development, as participants progress through this year-long experience. Data analysis will also be explored inductively as categories and themes emerge to guide the ongoing data collection. Continual reflection about the data, asking analytic questions, and making interpretations of the data will occur as it is collected through the two interview sessions during the study (Creswell, 2009).

Creswell (2009) suggests a step-by-step process to analyze data which involves multiple levels of analysis. The steps outlined by Creswell align with Marshall and Rossman’s (2006) procedure to categorize data into themes: (a) organize the data; (b) immerse in the data; (c) generate themes; (d) code the data; (e) offer interpretations through analytical memos; (f) search for alternative understandings; and (g) write the report.

First, raw data documented through interview transcripts will be organized and prepared for preliminary analysis. Transcripts will be typed and then confirmed for
accuracy by the participants. This will occur following each of the two interview sessions to take place during the student experience. A process to summarize content communicated by the students will occur so that the data can be placed into categories. The unit of analysis is types of influential occurrences experienced by students. Therefore, placing data into categories will occur by finding examples of the unit of analysis within the data collected (Foss & Waters, 2007). The data will be organized into analytical categories throughout the study as students will twice have the opportunity to communicate aspects of their experience aligned with mastering developmental tasks outlined in Super’s Theory of Career Development. Social phenomenology takes the view of people, such as students living this experience, and attributes meaning to make judgments which may lead, through the participants’ voices, to interpretation of data for this study (Fereday & Muir-Cochrane, 2006).

I will read through the data collected to attain a general sense and overall meaning of data collected (Creswell, 2009). Significant statements and quotes that align with the unit of analysis will be highlighted to begin funneling like topics into categories and core ideas as I start to capture the essence of the students’ voices. In addition, content will be organized with notations so that topics and core ideas which appear to have greater meaning may be designated as potential themes. Creswell (2009) states, “These themes are developed into broad patterns, theories, or generalizations that are then compared with personal experiences or with existing literature on the topic” (p. 64). Finally, I will continuously reflect on statements made by the participants as I label core ideas in an intentional and deliberate manner to illustrate connections between categories to visualize interrelationships (Creswell, 2009). Student statements in the form of quotations will be utilized to support specific themes as they emerge.
As I begin to organize and code data in greater detail I will make notes next to each category. Creswell (2009) communicates that there may be topics that individuals expect to find and other topics that are unanticipated. Based on literature I will anticipate and develop pre-determined codes for anticipated topics that Creswell (2009) states readers may expect to find based on literature and common sense (p. 186). Conversely, other codes will be developed as topics emerge. It is anticipated that some themes may align well with Super’s Career Development Theory as illustrated within the conceptual framework and others may not. Regardless, each code will be documented and reviewed as the process to analyze data continues. Excerpts that I view as a unit of analysis will be coded in the margin through a term or phrase (Foss & Waters, 2007). This will continue as I reflect on the data collected and move deeper and deeper to make an interpretation of the larger meaning of data collected (Creswell, 2009).

Each of the eight students interviewed will have his or her transcript marked with a unique color to easily link transcripts and data with each specific participant. Excerpts that align with the unit of analysis will be highlighted and marked with a term or phrase to code the data. Once coding is complete coded excerpts will be sorted. Sorting will occur by examining how each excerpt aligns with the unit of analysis. Foss and Waters (2007) suggest that the codes, rather than quotes, be used to categorize the excerpts. Categories will be further refined, reduced in number, and labeled based on how the codes in each category illustrate a core idea. I will review each pile and reflect upon how each code aligns with excerpts, reflecting on the topics that begin to emerge. Piles will be refined to best reflect the data which has been coded and sorted into categories.

Once categories are established I will begin to explore potential alignment between coded excerpts related to educational opportunities and influential experiences.
Topics that have a common theme will be organized into an explanatory schema taking into consideration patterns and relationships (Foss & Waters, 2007). Potential relationships will be reviewed and documented. I will then have the opportunity to establish key themes based on these relationships. I will continue to analyze themes as data aligns with Super’s Career Development Theory and the associated developmental tasks. The themes will ultimately generate an explanatory schema producing an emerging understanding about the research question. This, in turn, will influence the data analysis process as it leads to a saturation point in which no new themes emerge (DiCicco-Bloom & Crabtree, 2006).

Finally, explanatory terms will be established to best define the themes. Foss and Waters (2007) suggest that, if possible, explanatory terms reflect an inductive analysis so that original rather than conventional descriptors are used. It is recognized, however, that deductive reasoning and conventional terms will be used if relationships relate to existing literature and theory. Major themes and core ideas will offer an explanation for the research question while quotes and excerpts collected from the participants will offer evidence to support the findings. The data, from a holistic view, will provide an explanation and virtual roadmap between the purpose statement, research questions, conceptual framework, and interview questions using Super’s theory as the compass rose to guide the investigation. I will follow the data collection and analysis sequence recommended by Foss and Waters (2007) who state,

Core ideas outlined in the explanatory schema become the chapter headings, the subtopics within the concepts become the sub-headings, each heading and sub-heading is followed by a short introduction substantiating the claim about the
excerpts which is then aligned with participants’ quotes. Finally, an analysis is provided relating the quoted excerpts to the initial claim. (p. 215)

This data analysis process, first using a deductive-driven approach followed by an inductive analysis of data aligned with Super’s theory, will provide an avenue to explore, document, disseminate, and interpret data regarding the lived experiences of twelfth-grade nursing preparation CTE students as their CTE experience influences their decisions to pursue a career in nursing.

Qualitative Validity

I recognize that bias is a natural part of the qualitative process and that it is impossible to remove all bias while conducting a qualitative study. However, steps will be taken to attain the greatest level of validity throughout the course of this research.

Trustworthiness

According to Marshall and Rossman (2006) qualitative researchers must build trust, maintain good relations, respect norms of reciprocity, and consider ethical issues. Interviewing participants over an entire school year twice throughout the experience may allow for comfort and trust to build throughout the length of the study. Furthermore, I have over ten years of experience working with students enrolled in CTE. I recognize speaking with high school students enrolled in CTE programming at their level will take patience, understanding, and time to build a level of trust. Member checking and audit trails are two strategies to increase trustworthiness. In addition to having each participant review transcripts, specifically the interpretation and conclusions of their responses, I, along with the CPS Coordinator, will document various aspects of the study maintaining interview notes, a journal, and a calendar of events as a means to, according to Carlson (2010), demonstrate that the entire research process is worthy.
Credibility

“Continuing discussions of criteria for assessing the value and trustworthiness of qualitative research are quite persuasive” (Marshall & Rossman, 2006, p. 205). Several steps will occur to ensure that findings are valid. Member checking will occur to confirm the content and intent of student responses. Participants will receive transcripts of their interviews and will have the opportunity to indicate any modifications that need to be made following transcription. Consistency and developmental validity will be analyzed through comparing answers to at least some of the same questions asked in each of the interviews throughout the school educational experience (Griffie, 2005).

Transferability

Findings may be useful to other career and technical education centers that may wish to better understand the students’ experience of the career decision-making process. Super’s theory will be used as the framework to guide research questions, data collection, and analysis throughout the study (Marshall & Rossman, 2006). Although this study is intended to provide data specific to one location, findings may contribute to literature related to career exploration and choice theories.

Interview Questions

(Interviews will occur twice throughout the year, December 2016 and May 2017.)

Overarching Research Question: What educational experiences influence a twelfth-grade CTE student’s decision to pursue a career in nursing?
<table>
<thead>
<tr>
<th>Overarching Research Question: What educational experiences influence a twelfth-grade CTE student’s decision to pursue a career in nursing?</th>
<th>Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What experiences through a twelfth-grade student’s Nursing Preparation CTE experience prompt the <em>crystallizing</em> process to pursue a career in nursing? <em>Crystallizing - transitioning from a tentative, general preference of career pathway to a more specific career choice.</em></td>
<td>1.0 What interested you in this health science-related career?</td>
</tr>
<tr>
<td>1.1 Please tell me about the experiences that led you to enroll in the LISD TECH Center Nursing Preparation course.</td>
<td>1.1 Please tell me about the experiences that led you to enroll in the LISD TECH Center Nursing Preparation course.</td>
</tr>
<tr>
<td>1.2 Please tell me how certain you are, in the career exploration process, regarding your decision to pursue a career in nursing.</td>
<td>1.2 Please tell me how certain you are, in the career exploration process, regarding your decision to pursue a career in nursing.</td>
</tr>
<tr>
<td>1.3 Please tell me about the influential experiences facilitated through the nursing preparation CTE program that have influenced your level of certainty to pursue a nursing career.</td>
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</tr>
<tr>
<td>1.4 What experiences and opportunities throughout this school year have had the greatest influence regarding your decision to pursue a nursing career? Please explain how each of these experiences and opportunities influenced your decision.</td>
<td>1.4 What experiences and opportunities throughout this school year have had the greatest influence regarding your decision to pursue a nursing career? Please explain how each of these experiences and opportunities influenced your decision.</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
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<td>-------------------------------------------------------------------------</td>
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<tr>
<td>1.5 Please tell me about any academic coursework, volunteerism, practical</td>
<td>experiences, leadership opportunities, work experiences, or job shadowing that influenced your decision to pursue a career in nursing. Please tell me how these experiences helped crystallize your choice to pursue a career in nursing.</td>
</tr>
<tr>
<td>2. What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence specification to pursue a career in nursing?</td>
<td>2.1 Is there a specific area within the nursing field that you believe is of interest to you? Please tell me why this specific area of nursing of interest to you.</td>
</tr>
<tr>
<td>Specification - determining an occupational preference</td>
<td>2.2 Has a preference to pursue nursing changed into a decision or determination to pursue this career? If so, at what point this year did this decision or determination occur?</td>
</tr>
<tr>
<td>3. What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence implementation to pursue a career in nursing?</td>
<td>3.1 If you have made a decision to pursue a career in nursing, what steps have you taken to pursue postsecondary training and education after high school?</td>
</tr>
<tr>
<td>Implementation - completing career-related exploration and training activities and strategically making decisions regarding the process to enter college and career</td>
<td></td>
</tr>
</tbody>
</table>

**The Researcher**

I realize that in this qualitative study I must take steps to ensure that my positionality minimizes bias within the study. This may be accomplished through a deliberate yet careful approach to the methodological literature on the self and one’s
social identities in conducting inquiry, interpreting data, and constructing the final narrative (Marshall & Rossman, 2006). I served as a CTE administrator for five years and believe in the purpose that CTE serves for students. I acknowledge this as a bias. Providing relevant career exploration opportunities to students as a means to determine whether or not a career path is appropriate and viable is an educational outcome vital to the career decision-making process. However, my curiosity to better understand this student experience requires me to link curiosity to the research questions (Marshall & Rossman, 2006).

Eight LISD TECH Center Nursing Preparation students who agree to participate in this study will be interviewed during and following the experience. Following policy of Western Michigan University, approval from Western Michigan University’s Human Subjects Institutional Review Board (HSIRB) will be sought. A LISD career exploration services coordinator and I will facilitate the interviews. Interview sessions, specifically setting the dates and times to interview participants, will be facilitated by the two LISD career exploration services coordinators familiar with the students. Interviews will occur at the LISD TECH Center, a location very familiar to the students participating in the study.

The methodology is based on Hill, Thompson, and Williams’ (1997) consensual qualitative research (CQR), which has yielded promising results in similar studies (Hill et al., 2005). CQR seeks to establish themes by having the researcher utilize open-ended interview questions to uncover the meaning within individual experiences. It is the intent to identify common themes that may be transferable to the larger population. Consistent with the recommended sample composition, the participants within this study are of a homogeneous population who are enrolled in a nursing preparation course and experience
the same educational opportunities. Furthermore, the recommended sample size of 8-15 participants described in CQR methodology (Hill et. al., 2005) is followed in this study. This study involves two interviews per person throughout the students’ experience. Core ideas and quotations from the participant interviews will be gathered and used to construct themes and illustrate results. The interviews are intended to include rich, in-depth data whereby a large amount of data will be collected throughout the two sessions of face-to-face interviews over the course of ten months.

**Summary**

This study employs a qualitative research design to explore the lived experience of twelfth-grade students as they progress through their Nursing Preparation CTE program leading to a choice to either pursue, or not pursue, a career in nursing. Eight participants will be interviewed twice during their educational experience, specifically at the mid-point and near the end of participation in the course. I have considered relevant literature to determine that multiple interviews with eight participants, conducted with an appropriate length for each session, will allow me to reach data and theoretical saturation, as well as information redundancy (Onwuegbuzie & Leech, 2007). The interviews will be audio-taped and then transcribed. Transcriptions will be provided to the students for member checking. Data collected from the interviews constitute raw data that must be interpreted. According to Griffee (2005), this may be accomplished through becoming familiar with the vast information gathered and then determining themes once a careful review, consideration, and reduction of the data has occurred. This process will be completed by conducting face-to-face interviews and transcribing the content, reviewing the data, and coding the interviews until certain themes become apparent.
CHAPTER IV
RESULTS

Brief Overview of Purpose and Questions

Researchers of career development and choice theories have studied the career decision-making process of individuals throughout what Super (1990) refers to as the exploration phase, ages 15 through 24. The research, however, does not specifically address how educational experiences through a CTE program influence the career decision-making process of twelfth-grade students crystallizing, specifying, and implementing a choice of career. The purpose of this study, therefore, was to explore the lived experiences of twelfth-grade Nursing Preparation CTE students by describing and interpreting how their CTE experience influenced their decisions to pursue a career in nursing. I used the lens of the second stage of Super’s theory of career development called “exploration.” The career development stage, Exploration, includes three developmental tasks: (a) crystallizing, (b) specifying, and (c) implementing a career choice. “Crystallizing” means the student moves from a general preference of career pathway to a more specific career choice. “Specifying” means the student moves from a career choice to an exploration of that choice. That is, students may participate in exploration activities and these opportunities lead to an affirmation and provide clarity. Finally, “implementation” means the student makes strategic decisions regarding the process of entering college and a career. Results of this qualitative study are detailed in this chapter.

The central research question, “What educational experiences influence a twelfth-grade CTE student’s decision to pursue a career in nursing?” leads to the following sub-
questions to guide the study with regard to aspects of Super’s (1990) Theory of Career Development.

1. What experiences through a twelfth-grade student’s Nursing Preparation CTE experience prompt the crystallizing process to pursue a career in nursing?
2. What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence specification to pursue a career in nursing?
3. What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence implementation to pursue a career in nursing?

Results

The results of this study are presented through themes that emerged from data pertaining to each research sub-question. Supporting evidence is illustrated in this chapter through the voice of students enrolled in the LISD Nursing Preparation CTE program.

The high school seniors who participated in this study are consumers of a unique educational opportunity. Through this CTE course students were engaged in a career decision-making process. Based on their experience, they offer insight regarding aspects leading up to, and throughout, this specific CTE program that influenced their decision to pursue a career in nursing.

Students who participate with the Nursing Preparation program are offered the opportunity to further explore a career interest and proceed through a decision-making process with specific developmental tasks of crystallizing, specifying, and implementing a choice of career. The inspiration offered to the students throughout this career exploration opportunity, and the perspiration as a result of the students’ hard work and determination, is a testament to many engaged with this educational experience. Students had the opportunity to articulate, through their voice, experiences which influenced a
decision to pursue a career in nursing. Specifically, students articulated experiences which prompted the developmental tasks of crystallization, specification, and implementation as they progressed through this career exploration opportunity.

**Unit of Analysis**

Super’s Theory of Career Development was the basis of this study. The qualitative approach of this study utilized both an inductive and deductive approach to analyze data. Open-ended data collection was documented through audio transcripts and handwritten notes during two interview sessions. The first interview session with the participants took place December 1, 2016, and the second interview session occurred May 2, 2017. Each of the eight participants was interviewed twice, once in December and once in May during their year-long course of study. (A ninth student, identified as Student 006, was randomly selected as an alternate in case one of the other eight was unable to participate throughout the study. Data from Student 006 is not included in this analysis.)

A step-by-step process suggested by Creswell (2009) was used to analyze data through multiple levels of analysis once transcripts were prepared and confirmed for accuracy by the participants. The data was organized into themes using the steps outlined by Creswell, aligned with Marshall and Rossman’s (2006) procedure: (a) organize the data; (b) immerse in the data; (c) generate themes; (d) code the data; (e) offer interpretations through analytical memos; (f) search for alternative understandings; and (g) write the report.

The unit of analysis was the types of influential experiences communicated by the students. Therefore, information was placed into categories by finding examples of the unit of analysis within the data collected (Foss & Waters, 2007). The data was organized
into analytical categories throughout the study as students twice had the opportunity to communicate aspects of their experience aligned with mastering developmental tasks outlined in Super’s Theory of Career Development. Following each interview, I read through the data collected and illustrated through transcripts. Significant statements and quotes that aligned with the unit of analysis were highlighted as I began to place like topics into categories. The students’ voices presented topics and core ideas that had greater meaning as they progressed through each of the two interviews. As I continuously reflected on statements made by the participants, I highlighted core ideas in an intentional and deliberate manner to illustrate connections between categories to visualize interrelationships (Creswell, 2009). Student statements and quotes were utilized to support themes that emerged throughout the process.

Creswell (2009) writes that there may be topics that individuals expect to find and other topics that are unanticipated. Based on literature, I anticipated and developed pre-determined codes for a couple of topics that Creswell (2009) states readers may expect to find based on literature and common sense (p. 186). Most codes were developed as topics emerged. I anticipated that two topics--prior experiences and environmental influences--would likely align with specifying a career interest in nursing. This is due to prior coursework related to health sciences or advanced classes pertaining to science being a prerequisite for enrollment in Nursing Preparation. In addition, environmental influences such as athletics, extra-curricular activities, and academic courses of study often play a role in youth exploring various areas of interest. Excerpts that I viewed as a unit of analysis were coded with a term or phrase (Foss & Waters, 2007). This continued as I reflected on the data collected and moved deeper and deeper to make an interpretation of the larger meaning of data collected (Creswell, 2009).
Each of the eight students interviewed had his or her transcript highlighted to align transcripts and data. Excerpts that aligned with the unit of analysis were highlighted and marked with a unique color, term, or phrase indicating a potential theme. Sorting occurred by examining how each excerpt aligned with the unit of analysis. Categories, as they were refined, reduced in number, and were labeled as potential themes. Once categories were established I began to explore potential alignment between coded excerpts related to educational opportunities and influential experiences. Topics that had a common theme were organized into an explanatory schema taking into consideration patterns and relationships (Foss & Waters, 2007). In addition, the time frame in which the influential experience occurred was noted with the category. This eventually offered a “timeline of events” in which developmental tasks were explored and then mastered by the students. The relationship between the timeline and the influential experiences illustrated through categories and supported by the students’ statements presented key themes based on this relationship that emerged throughout the career decision-making process.

I continued to analyze themes as data aligned with Super’s Career Development Theory and the three developmental tasks. The themes ultimately generated an explanatory schema, through the students’ voices, producing an emerging understanding about each research sub-question. This, in turn, influenced the data analysis process as it led to a saturation point in which no new themes emerged (DiCicco-Bloom & Crabtree, 2006).

Finally, explanatory terms were established to best define the themes. Foss and Waters (2007) suggest that, if possible, explanatory terms reflect an inductive analysis so that original rather than conventional descriptors are used. However, deductive reasoning
and conventional terms were used if relationships related to existing literature and theory. Major themes and core ideas offered an explanation for the research question while quotes, statements, and excerpts collected from the participants offered evidence to support the findings. As anticipated, the data collected from this study provided an explanation and virtual roadmap between the purpose statement, research questions, conceptual framework, and interview questions using Super’s theory as the compass rose to guide the investigation and test of his theory.

An inductive approach was used as little is known about educational experiences which influence a decision to pursue a nursing career after completing a career exploration experience within the realm of CTE. Data analysis was explored inductively as categories and themes emerged to guide the ongoing data collection. I used “an emerging qualitative approach to inquiry, to collect data in a natural setting sensitive to the people and places under study, and data analysis that is inductive and establishes patterns or themes” (Creswell, 2007, p. 37). Explanatory terms were utilized through an inductive analysis where original rather than conventional descriptors were used. Data analysis was explored inductively through categories such as academics, technical skills, and leadership. Themes such as previous coursework and family involvement were documented as experiences that occurred prior to enrollment in the nursing preparation program. These influential experiences aligned with the theory and conceptual framework. However, themes such as dual enrollment and CNA training were experiences that progressed and evolved throughout the entire school year and over the course of the two interviews. Continual reflection about the data, asking analytic questions, and making interpretations of the data continued to take place as it was collected throughout the study (Creswell, 2009). As data was collected during the two
interviews, and in the time in between, aspects of the deductive and inductive analysis complemented each other as I worked with known aspects of the theory and unknown aspects of the influential experiences.

This data analysis process, first using a deductive-driven approach followed by an inductive analysis of data aligned with Super’s theory, provided an avenue to explore, document, disseminate, and interpret data regarding the lived experiences of twelfth-grade Nursing Preparation students as their CTE experience influenced their decision to pursue a career in nursing.

**Analysis of Themes**

**Research Sub-question 1: What experiences through a twelfth-grade student’s Nursing Preparation CTE experience prompt the crystallizing process to pursue a career in nursing?**

Table 1 illustrates three themes related to Sub-question 1 that emerged based on data gathered from individual interviews with students enrolled in the LISD TECH Center Nursing Preparation program. Crystallization is the transitioning from a tentative, general preference of career pathway to a more specific career choice. The data show that Nursing Preparation students crystallize their career choice through (1a) family involvement with health care; (1b) environmental influences; and (1c) prior coursework and experiences. The degree of certainty stated by each participant and time of affirmation, or period in which crystallizing a decision to pursue nursing occurred and specifying began, is illustrated as well.
Table 1

Developmental Task of Crystallization

<table>
<thead>
<tr>
<th>Subject</th>
<th>Crystallization</th>
<th>Environmental Influence</th>
<th>Prior Course Work/Aligned Experiences</th>
<th>Degree of Certainty/Time of Affirmation (Dec. 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(001)</td>
<td>Mom, Oldest Sister, Other Sister</td>
<td>Dad (occ. demand), teacher (story telling, advising)</td>
<td>Health Care Careers (HCC)/Clinical skills, spoke with CRNA, HOSA-Nursing Asst.</td>
<td>Definitely/HCC end of clinicals</td>
</tr>
<tr>
<td>2(002)</td>
<td>Grandma, Aunt, Grandpa</td>
<td>Teacher (story telling), job shadow</td>
<td>HCC, Bio-Med, AP Bio/HOSA-Forensic Medicine</td>
<td>100%/HCC throughout the year</td>
</tr>
<tr>
<td>3(003)</td>
<td>Grandma (medical care), Dad (professor)</td>
<td>Media (TV), sophomore visit, job shadow</td>
<td>HCC/Volunteer at Nursing Home, Job Shadow, HOSA-Medical Asst.</td>
<td>100%, HCC/Clinicals, April</td>
</tr>
<tr>
<td>4(004)</td>
<td>Grandma</td>
<td>Media (video), job shadow</td>
<td>Sophomore Seminar/HOSA-Home Health Aide</td>
<td>100%/about 10 years old</td>
</tr>
<tr>
<td>5(005)</td>
<td>Uncle</td>
<td>Sophomore visit, training</td>
<td>HCC/ Skills, HOSA-Nursing Asst.</td>
<td>Confident/Jr. year</td>
</tr>
<tr>
<td>7(007)</td>
<td>Uncle, Grandma, Mom, own health issues</td>
<td>Health issues, teacher, training</td>
<td>Nutrition &amp; Diet Therapy, Intro. to Health Occ., Health &amp; Wellness/Teacher, HOSA-CPR/First Aid</td>
<td>Very certain, Nursing Prep/hospital setting</td>
</tr>
<tr>
<td>8(008)</td>
<td>Cousins, Older Sister (nursing prep)</td>
<td>Training, teacher (advising, story telling)</td>
<td>Anatomy/Sister enrolled in Nursing Prep, counselor, HOSA-Nursing Asst.</td>
<td>Confident/prior to Nursing Prep</td>
</tr>
<tr>
<td>9(009)</td>
<td>Aunt, Sister (medical care)</td>
<td>Sophomore visit, teacher, job shadow</td>
<td>HCC/Friends, cousin, job shadow/HOSA-Forensic Medicine</td>
<td>100%, HCC, first 10 mins of job shadow/middle school</td>
</tr>
</tbody>
</table>

Theme 1a: Nursing Preparation students crystallize their career choice through family involvement with health care. Students enrolled in the Nursing Prep program experience the developmental task of crystallization prior to attending the Nursing Preparation program. Students were asked to articulate what interested them in
this health science-related career. They identified *family involvement with health care* as an influence crystallizing the decision to engage in a career exploration program focused on the occupation of nursing. Participants cited their own family members’ personal involvement with health care, either through employment in the health care field or through involvement with health care as they encountered health-related issues, as influential experiences that led them to gain interest in nursing, crystallizing their decision to explore aspects of this occupation.

In addition, *environmental influences* were cited by students as they expressed what experiences led them to enroll in health science-related courses and explore a potential health care career. The most prominent theme crystallizing the students’ decision to pursue nursing was engagement with *prior course work and experiences* leading to enrollment in the Nursing Prep CTE program. The opportunity to attain CNA certification and the option to dual enroll also influenced crystallization, but these two aspects more specifically influenced the second developmental task of specification throughout the career decision-making process. Dual enrollment promotes the opportunity for students to enroll in college coursework and earn college credit while in high school. Based on these three themes, all eight students participating in this study crystallized their decision to further study nursing as a career choice and transitioned from a tentative, general preference of career pathway to a specific choice of career by the end of their junior year.

The following excerpts are from data collected through the first interview with students enrolled in the Nursing Preparation program.

Student (001):
My mom was also studying to be a nurse. My oldest sister, she’s 28 now, she just graduated from a nurse anesthetist school. She first got her BSN, she did two years on-the-job-training, worked in a hospital in Chicago, then she went on to pursue her career as a nurse anesthetist. My other sister, she will graduate this year and she will have her BSN. She wants to do a couple years of training just to see where she wants to go. She wants to be a nurse practitioner, mostly in family practice.

Student (002):

Ever since I’ve been growing up, I’ve been introduced to the health field. My grandma, aunt, and grandpa, they’ve all been in the health field. I could go to work with them. It interested me as I grew up.

Student (007):

A lot of my family is in the medical field. My uncle is the lab tech up at [local hospital], so I’m there all the time to go see him. He just transferred over to [another hospital]. And then my grandma worked at [a hospital] for 33 years I believe. She was part of I believe the housekeeping staff. But she did everyone else’s job, too. I always got to go to [the hospital] and see everybody there. It was mostly my grandma and my uncle, but my mom was in nursing school for a while, and my dad went to classes for nursing.

Student (008):

I had relatives in the medical profession and had an older sibling who also participated with the LISD Nursing Preparation CTE course. A couple of my cousins are in the medical field. One is a foot doctor. My parents have always encouraged the medical field. My older sister actually took Nursing Prep. It was
my sister and the nursery at my church that encouraged me to enroll in this class. At the high school they talk about the TECH Center a lot. I decided to join in as well. My mom also attended the TECH Center, so that also made me join in, too. My older sister attended the TECH Center. I’m not really sure what my mom did, but my sister participated with the Nursing Prep program. She found out that she didn’t like it. She had passed out at [laughter] when they did the needle thing, so she didn’t like it. But I thought it sounded interesting.

Student (009) reported, “My aunt went back to school to be a nurse and so I want to do what she did.”

Family members’ involvement with the health care profession was a common theme among the students, who often had at least one relative who was immersed in the health care field in one aspect or another. Others simply wanted to help people and, in the past, had family members, or even themselves, who required medical assistance or care. This aligned with the theme of family involvement with health care as students expressed care of others--often an experience of taking care of a family member--as an experience that influenced crystallizing a decision to enroll in the course and further explore a career in nursing.

Student (003) experienced taking care of a grandparent:

My grandma, she’s in her eighties, actually she’s in her nineties now. She’s broken a hip and I’ve helped her with getting up, eating, taking pills and stuff. I enjoy seeing her face and when I’m with her, just the idea of watching her getting healthier, taking care has really interested me. Knowing this would help me later on in college, I decided I want to take [Nursing Prep]. She lives in Kentucky, so whenever I go down there I help take care of her. She’s been sick for maybe ten
years. Taking care of medicine and helping her move around, making sure that she’s feeling ok, making sure that she has everything that she needs.

Student (005) was specific regarding her desire to become a pediatric nurse: “I want to help people and I also love kids. I want to become a pediatric nurse because I just love helping people when they’re in need.” Student (007) commented on solidifying her desire to help others, based on her grandfather’s experience with Alzheimer’s:

I’ve been in the hospital setting, which is where I got this from, and this class; we’ve all taken care of each other. We’ve all practiced different scenarios. My grandfather had Alzheimer’s disease so I took care of him with my grandmother. And this was kind of like that. I’ve done it [practiced patient care] on an actual person before, and it kind of just solidified the fact that I want to help people who can’t help themselves.

Student (008) also stated a desire to help others: “I want to do it mostly because I like helping people. I like the medical side of it, too.” Another student (009) noted how fantasy has become reality, beginning to crystallize a decision years earlier while in middle school:

Probably in middle school. When I was little I was always like, I’m going to be famous. I want to be a princess [laughter], but now, as I got older, I realize I like helping people. My little sister is diabetic, so I have to help her with stuff at home, so that really influenced me.

**Theme 1b: Nursing Preparation students crystallize their career choice through environmental influences.** Brown and Brooks (1996) believed that environmental conditions and events affect the career decision making process. The authors state, “a person acts on the environment so as to produce positive consequences”
(pp. 237-238). Other environmental aspects aligned with family reflect a belief that people may “hear or read statements that associate certain occupations with positive or negative characteristics” (Brown & Brooks, p. 240). Students expressed various *environmental influences* that prompted crystallizing a decision to pursue nursing as a potential occupation.

Student (001) stated, “My dad always told me to choose a field that would always have a need, a demand.” This student commented further, stating that her dad mentioned the potential lucrative “money aspect” of the profession as well as the opportunity to “take care of others.” Student (003) illustrated how her father’s employment influenced her crystallization process:

> My dad is a professor at [local university]. He does the Intro to Nursing class. Watching him, dealing with that stuff, it’s kind of nice. I’ve always wanted to take after him a little bit. He teaches Intro to Nursing and then he also teaches Animal Biology.

Students cited *environmental influences* such as media having an impact on crystallizing an interest in health care. One student stated that medical-related television shows such as *Grey’s Anatomy* piqued her interest in the medical field. Another student stated that watching the *Miracle of Life* video while in middle school sparked an interest in “how things work.” One student stated that he experienced his own health issues as a child and was influenced by being in the hospital environment. Another student spoke of working as a team and having the opportunity to “prove to myself” that she could do something like patient care.

Student (003):
Ever since I was little, I’m not really scared of all like the needles and blood and guts. I have a strong stomach. TV shows kind of got me, too [laughter]. *Grey’s Anatomy* is my favorite and if I could do that every day that would be so much fun. Being in the operating room would be so cool. Not that I want to watch people get cut open every day, that’s not really what I want to do. But I would like to be in there.

Student (004) stated that watching the *Miracle of Life* video in 7th or 8th grade influenced the crystallization process:

> It was kind of gross, but I liked the ending when you hand the woman her child for the very first time. Her face lights up. It kind of is what stuck for me. That’s why I want to go into obstetrician/gynecology for nursing. Any science class. I like learning about how things are working and stuff; it really interests me.

Student (007) described an unfavorable experience while in the hospital as a youth:

> “When I was born, I had a lot of health issues.” The student stated that this prompted a desire to provide better quality of health care to others. Student (008) described a desire to work with others and, at the same time, work independently to prove to herself that she too could care for others:

> I thought that being part of the medical field would be really cool because it’s a lot of teamwork, and then also on your own. I guess part of myself wanted to like prove to myself that I can do something like that.

Finally, Student (009) explained the influence job shadowing had on the crystallization and specification career decision-making tasks by allowing her to spend time with a nurse in a health care environment: “I’ve gotten to do more job shadowing at [a local] hospital. I did that last year, too. I really, really like that. It’s just more of that,
doing the things that I’ve already done that have kind of confirmed [my choice of career].” When asked of a specific area within the nursing field that may be of greatest interest, the student responded, “Labor and delivery.” Asked if there was anything that she did this year that related specifically to labor and delivery that affirmed this decision, she stated, “My job shadowing. I was in labor and delivery for twelve hours with [a nurse] at [a hospital].”

**Theme 1c: Nursing Preparation students crystallize their career choice through prior coursework and experiences.** Students attending school in Lenawee County have the opportunity, during their 10th grade year, to participate with a Sophomore Visit of three LISD TECH Center CTE programs. Following the visit, students work with their guidance counselor and staff at the LISD TECH Center to choose a program in which to enroll their junior year. Students communicated that participation with the sophomore visit, within the LISD TECH Center environment, influenced crystallizing a decision to pursue nursing through the career decision-making process.

Student (003) stated,

It looked like it was a fun place. I didn’t want to stay at [my home district] all day every day. We would learn some nursing skills, vital signs and blood pressure. I wanted to learn those things because it’s one step getting closer to being a nurse.

Student (005) explained how the visit influenced the decision to further study health sciences: I wanted to become a teacher and then I wanted to become head of a daycare. I realized that the healthcare field is really good, so when I first came here my sophomore year and looked at the programs I decided that Health Care Careers would be interesting.
Student (009) stated specific advantages and opportunities available through enrollment in Health Care Careers:

I went there and saw you got hands-on skills and you can get some college credit, depending on how well you did. That’s when I was like, oh yeah, I want do that because you get exposed to all of the health care careers instead of just one specific one.

The most prominent theme was the influential aspects of enrollment in *prior course work and aligned experiences*. Following sophomore visits most students enrolled in the Health Care Careers course at the LISD TECH Center as 11th grade students. This year-long experience occurred prior to students’ enrolling in the Nursing Preparation course for their senior year. Through the students’ voices, enrollment in Health Care Careers was named as an influential experience crystallizing the decision to proceed with the career exploration process focused on nursing throughout the twelfth-grade year.

Five of the eight students attended the Health Care Careers course as juniors. The other three students completed coursework at their resident school district. This coursework throughout the junior year, in part, led students to enroll in the nursing preparation program for further career exploration of nursing. Specific aspects of the Health Care Careers course and prior coursework at the student’s resident school district were identified as strong influences towards crystallizing nursing as a career choice.

Students who enroll in the Nursing Preparation program as seniors often take a health science-related course at the LISD TECH center their junior year. Most often this CTE course is Health Care Careers. However, for those who do not enroll in a health science-related CTE program their junior year, prior advanced coursework related to health care often takes place at the students’ resident school district and is, in fact, in
addition to counselor recommendation, a prerequisite to enrollment in Nursing Preparation. The three students who did not enroll in Health Careers their junior year spoke of coursework they completed at their resident district which influenced crystallizing the decision to participate with the Nursing Preparation program.

Student (002) stated, “Through my school I’ve been taking science and AP Bio. My favorite class was Principles of Biomedical Science, and Human Body Systems. Everything we learned coincided with each other.” Student (007) said, “I just went straight into Nursing Prep. I didn’t take Health Care Careers. I took a couple nursing classes like Nutrition and Diet Therapy, Intro to Health Occupations, and Health and Wellness. We decided to go with Nursing Prep.” Student (008) stated,

I took Anatomy at my school that got me interested. I started having an interest in anatomy over my other classes and I noticed myself actually studying for those classes and caring about how I do in it. Not that I don’t care about my other classes, but I found it interesting and we did a lot of hands-on labs. We went on a field trip to [a hospital] and we put on scrubs, and masks, and stuff like that. And we went to the cadaver lab.

Several students commented about the influential aspect of clinical rotations experienced through the Health Care Careers course during their junior year. Students communicated that participating with clinical rotations through the Health Care Careers course was an influential experience crystallizing the choice to further study nursing as a viable career option through postsecondary education. Student (001) stated,

Aspects of clinicals, actually to go and see other people. I got to witness that and it was an amazing experience. Participating with clinical rotations offered an opportunity for students to explore areas of interest such as science,
pharmacology, and chemistry. And just from memory, I remember when I knew I wanted to become a CRNA [certified registered nurse anesthetist]. I was just thinking about it in the back of my head. I remember last year I participated with a clinical rotation in outpatient surgery. I got to watch a colonoscopy and everybody’s like, “Oh gross, I would never want to watch that.” But I talked to the CRNA that was there. He was telling me how great his job was. I love surgery but I’m really fidgety and I get scared. But I love to just watch it and be able to monitor the person’s pain. So that’s another reason I chose to be a CRNA; [the experience] helped me choose that.

Student (002) described her experience:

**Clinicals**, helping people at [a local health care facility], the science part of it. Favorite part of it was probably the pharmacology and chemistry. Aspects of real-life scenarios offered an opportunity for students to observe and, at times, participate with health care.

Student (003) offered insight to her experience:

Clinicals during nursing or during the Health Care Careers class. I was in surgery and OB. I went to a nursing home and I also participated with ER. I loved seeing all of that and being around the environment. It really, really made me want to go into [nursing] even more. I guess just being in the hospital really intrigued me, being in surgery. I got to see an ankle fracture repair, so the ankle was wide open right there, and I just loved it. As weird as that sounds I just loved it. I also got to experience a gall bladder removal and that was the coolest thing ever. Health Care Careers class last year helped me, too. We got to shadow in many different departments of the hospital and that was really awesome. That’s probably one of
the main reasons that I wanted to go into this field. Yes, my favorite one was surgery, as weird as it sounds, but it was surgery. It was just cool to be in that environment.

Student (005) expressed,

While in Health Care Careers we learned med terms and then vitals, and how to care for a patient, and how to show empathy, and just basics. Clinicals at the hospital, I really like that. We got to see, we got to test the waters basically. I got to go into a ER and watch a surgery. I watched a surgery. I went to the ER. I didn’t do good in the surgery room, and then I followed the RN around.

To complement academic preparation through a CTE course of study, students enrolled in the health sciences pathway are able to participate with a student leadership organization along with competitions and activities focused on the health sciences. These experiences are facilitated through Health Occupations Students of America (HOSA), a career technical student organization (CTSO). Participating with a CTSO such as HOSA enhanced the career decision-making process throughout the junior year. It was stated by students that participation with HOSA was enjoyable, but not necessarily a critical aspect of the career decision-making process throughout their senior year. Students described their experience with HOSA.

Student (001) stated, “Medical terminology--competed at HOSA for that, went to states and that was amazing. It’s like another language that you get to speak.” Student (002) participated in HOSA Forensic Science. Student (003) described competing in HOSABowl: It was kind of like Jeopardy . . . it was kind of hard because you get a thick book and you had to know every single question in it. We had to do HOSA History and then some dental stuff, so it was kind of everything all combined.
Student (005) described how HOSA aligned with a specific area of nursing, pulmonology: Me and another student, we made a health care board and we [described] a pulmonologist. We described what they do in a career, and, at first we were confused because we had never participated in HOSA. We wanted to do something with [learning about] a trach. We never really knew what it was, so we were learning as we went. But it was really cool and it was good experience, too.

Teachers often have a strong influence on students’ K-12 education experience. This was no exception for students enrolled in Nursing Preparation. Participants described their experience with teachers and the influence they had on their career decision-making process.

Student (001): “I had an amazing teacher. She made me love coming to school, made me love coming to that class.” Student (002): “She has influenced me a lot. She’s helped me write my essays for U of M. She’s helped me write my letter of recommendation for U of M.” Student (007):

I have to give most of the credit to [the teacher], who is our instructor right now. She stepped in and revamped the whole program, and [pause], it was amazing. She just stepped in and really showed us. Because she worked in a hospital, as soon as she came here, she really showed us this isn’t going to be easy, this is a lot of work. She didn’t just go by the book; she made us do extra. This is what the book says to do, but this is what you are actually going to have to do. When [the teacher] stepped in and we started experiencing different things, not just what the book said that you have to do, but actual real-life experiences.

Students described various influential experiences which led to interest in the health science-related career of nursing and offered insight to crystallizing a decision to
pursue nursing as a potential choice of career. In addition, due to these experiences, students subsequently ended up crystallizing a decision to pursue further study of nursing, including the desire to specify an area within nursing, by the end of their eleventh-grade school year. Crystallizing this decision took place prior to students’ attending the Nursing Preparation program as seniors. Due to mastering this developmental task within the exploration stage, students crystallized a career choice and were positioned to transition the next developmental task of specifying a choice of career within nursing upon entering their senior year, much earlier than most high school students.

During the interviews that occurred December 1st students were asked what experiences and opportunities throughout this school year had had the greatest influence regarding the decision to pursue a nursing career. They were also asked to communicate any academic coursework, volunteerism, practical experiences, leadership opportunities, work experiences, or job shadowing that influenced the decision to pursue a career in nursing. By the time of this interview students were already able to articulate experiences which helped crystallize this choice of career. Furthermore, participants offered the timeframe in which crystallizing--transitioning from a tentative, general preference of career pathway to a more specific career choice of nursing--occurred.

Participation with clinical experiences as part of the Health Care Careers CTE program was noted by many as the period of time when crystallizing a decision to pursue nursing and further study the occupation occurred. During the December 1st interview students noted when crystallizing a decision to pursue nursing occurred and also offered a degree of certainty regarding their decision to further pursue a nursing career. During the first interview, students expressed a strong degree of certainty, with all students involved
in the study stating that a choice to pursue nursing following high school had occurred, crystallizing a decision by the end of their junior year. However, although students had crystallized their decision to pursue nursing at the postsecondary level, students at the December interview had yet to specify a decision on what area of nursing, or what specific degree, they would choose to pursue. Finally, all students participating in this study had applied to colleges/universities with preliminary plans to study nursing after high school. However, students were awaiting notice of acceptance and had yet to choose postsecondary institutions to attend. Students were asked if a preference to pursue nursing had changed into a decision or determination to pursue this career and, if so, at what point this year the decision or determination occurred. The participants offered the following regarding the timeframe in which the developmental task of crystallizing a decision to pursue nursing was made.

Student (001): “Last year during my Health Care Careers class around the end of my clinicals.”

Student (002): “Probably sophomore year when I got to visit here [LISD TECH Center]. I was like, they have classes that allow me to pursue this. Then throughout last year, pediatrics, that’s where I want to be.”

Student (003): “Yeah, I really want be a nurse. Probably clinicals last year April.”

Student (004): “I’ve always known, probably ten years old. I’m a person that likes to watch a lot of T.V. and I’ll admit that, and so I watched a lot of shows on giving birth, babies, and just helping women get pregnant.”

Student (005): “My junior year. I never really thought about nursing until my sophomore year when I was deciding about the classes.”
Student (007): “I’ve been pretty determined to go into nursing for a while, but definitely now that I’ve been able to be in the hospital setting with Nursing Prep.”

Student (008): “It was prior to coming into this, but I guess coming here and learning more about what a nurse does solidified my feelings about it.”

Student (009) explained her timeframe in more depth:

A hundred percent, neo-natal. When I knew that I wanted to go into neo-natal and the labor and delivery stuff was the first ten minutes of that job shadowing [experience]. When I started Health Care Careers and during the class. So probably the first couple weeks in because we started skills. [The teacher] told us stories, too, because she worked at a hospital.

Research Sub-question 2: What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence specification to pursue a career in nursing?

Students were asked if there was a specific area within the nursing field that they believed was of interest. By the second interview, which occurred May 2\textsuperscript{nd}, students spoke of specifying an area of study within the nursing field. Students stated that specifying an area of interest, compared to preliminary plans cited months earlier during the first interview session, was able to occur, in part due to influential experiences pertaining to establishing preliminary plans, participating with CNA training, and engaging in dual enrollment.

Table 2 shows the three themes related to Sub-question 2 that emerged based on information gathered from individual interviews with students enrolled in the LISD
TECH Center Nursing Preparation program: (2a) preliminary plans; (2b) CNA training; and (2c) dual enrollment.

Table 2

*Developmental Task of Specification*

<table>
<thead>
<tr>
<th>Subject</th>
<th>Preliminary Plans</th>
<th>CNA Training</th>
<th>Dual Enrollment</th>
<th>Specified Area of Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(001)</td>
<td>BNM, (BSN), CRNA, applied to colleges, get CNA</td>
<td>Clinicals, HOSA, CNA</td>
<td>Dual Enrollment</td>
<td>CRNA or NP</td>
</tr>
<tr>
<td>2(002)</td>
<td>Anthing with Pediatrics, (OB or NP), applied/accepted to college</td>
<td>Clinicals, HOSA, CNA</td>
<td>CNA , Dual Enrollment</td>
<td>OB/GYN or NP</td>
</tr>
<tr>
<td>3(003)</td>
<td>(ER, OB, Med Surg), not really sure yet, applied/get CNA</td>
<td>Clinicals, HOSA</td>
<td>Dual Enrollment, CNA</td>
<td>ER, Surgery or OB/GYN</td>
</tr>
<tr>
<td>4(004)</td>
<td>(OB/GYN), applied to colleges</td>
<td>N/A</td>
<td>Dual Enrollment, CNA</td>
<td>OB/Gyn</td>
</tr>
<tr>
<td>5(005)</td>
<td>(Pediatric Nurse), applied/ CNA</td>
<td>Clinicals, HOSA, CNA</td>
<td>CNA , Dual Enrollment</td>
<td>Pediatric Nursing</td>
</tr>
<tr>
<td>7(007)</td>
<td>(Pediatrics), applied/CNA</td>
<td>CNA</td>
<td>Teacher, Dual Enrollment</td>
<td>RN or NP, Pediatrics</td>
</tr>
<tr>
<td>8(008)</td>
<td>Dermatology or (Pediatrics), applied/CNA</td>
<td>CNA</td>
<td>Teacher</td>
<td>Change from PA to NP</td>
</tr>
<tr>
<td>9(009)</td>
<td>(Nurse), Neonatal, Midwife, (OB/GYN), applied</td>
<td>CNA</td>
<td>CNA , Dual Enrollment</td>
<td>NP or OB/GYN, Neonatal</td>
</tr>
</tbody>
</table>
Theme 2a: Nursing Preparation students specify their career choice through preliminary plans. The first of two interviews with the participants occurred in December towards the end of the first trimester. At this point all participants in the study offered confidence that the choice to pursue further training towards a nursing career had crystallized. Table 2 illustrates the preliminary plans for each participant, the common theme of CNA training and Dual Enrollment as influential experiences, and the area(s) of interest stated by students in December. Each respective participant stated this after being enrolled in the course for approximately 12 weeks. During the first interview, students articulated influential aspects crystallizing the choice to transition from a tentative, general preference of career pathway to a more specific career choice. At the same time, due to the timeframe of the interview December 1st, aspects of crystallizing and specifying a career choice were both mentioned by participants. During the first interview participants shared experiences that influenced their decision to further explore the occupation of nursing and, at the same time, offered insight to potential areas within the field of nursing that might be of interest. Participants were asked, “Is there a specific area within the nursing field that you believe is of interest to you?

Students, during the first interview, responded with the following, providing areas of interest but not yet specifying details as they continued the career exploration and decision-making process. Participants at the time had transitioned to the developmental task of specifying an occupational preference within the field of nursing:

Student (001) named an area of interest: “Start out with RN, graduating with my BSN so I would be a registered nurse. Specific field, as I mentioned, would be nurse anesthetist.” Student (002): “Anything with pediatrics. I like dealing with kids. Even
throughout school, I’d rather help elementary students. I just click with them.” Student (003):

I guess either ER or OB or med surg, I’m not really sure yet. The babies in OB are so cute and I feel like being around them would be very nice, and ER. If I wanted to do ER I think I would go to a bigger city to get [around] more people. Living in a small town, not much really happens and you probably won’t see that much in the ER. And then med surg just to be in the surgical room; that’d be really awesome.

Student (004):

Obstetrician/gynecology field. I love babies like a hundred percent. Bring that baby into life, bring it into the world. It’s the most important part of life, I think. Just knowing that I get to do that and help the lady doing it through the process.

Student (005): “Pediatric nursing. I have a connection with kids and I feel like I can calm them and help them when they’re sick and [through] the rough times. Student (007):

“Pediatrics, especially because when I was little I had many health issues. My cousin is my main factor for me. He has MCAD, which is a very long drawn out name, but basically his body cannot break down fats.”

Student (008):

I either want to go into dermatology or work with babies, one of those two. I love little children and I also find the skin to be interesting. At my church I volunteer in the nursery and I love helping little babies. It’s just really relaxing to me. I find skin really interesting and I like learning about different things and how they affect your skin and stuff like that. I’m also really interest in cosmetics and products on your face.
Student (009):

Right now I don’t even want to just be a nurse. I want to go farther than that. Like Neo-natal. I wanted to be a midwife but I’ve also thought about being an OB-GYN, actually being a doctor. I don’t know. That’s a lot of responsibility, but that interests me because I got to do the clinicals and I’ve been around babies.

Establishing preliminary plans offered an opportunity for students to reflect upon what specific area or areas within the nursing profession might be of interest. Students, while applying to colleges or universities, looked to see if institutions offered specific areas of study. Through preliminary planning students were able to seek individuals and experiences throughout the school year that could offer greater insight and clarity to what specific area of study, and what institution, aligned with short- and long-term goals. As specifying a career choice progressed throughout the year, participants were able to transition to the developmental task of implementing a choice of career with greater clarity compared to most high school students.

**Theme 2b: Nursing Preparation students specify their career choice through CNA training.** Attainment of certification was a vital aspect of the program for several participants. Many noted the opportunity to gain valuable practical skills and, by completing CNA certification, they planned to utilize the qualification as they implement postsecondary plans. Many commented on specific skills learned through attainment of the CNA certificate. Additionally, many were empowered by the opportunity to be employed as a CNA prior to, and while attending, college in the fall.

Student (001) stated,

We get to get our CNA license. I don’t want to specifically be a CNA, but I believe getting that certification will give me a foot ahead and also give me a job
opportunity in the future. I would say just some of the things were different from taking Health Care Careers my junior year to my senior year into Nursing Prep. I feel so grown up because we’ve moved past vital signs. We are now doing skills, we are transferring patients, we are taking them, we are feeding them, we are cleaning them. It’s just an amazing experience. And it just makes me feel like a hero because we are taking care of somebody. It’s our next step and it’s not funny, it’s not silly, it’s not like a little kid thing. This is us and this is what we’re doing. And we’re helping people, and that’s our passion. I feel that’s what made me feel more grown up.

Student (002) described the specific skills attained through the CNA experience:
Handwashing, personal protective equipment, dental washing, and making a bed.
I think being able to take the CNA exam at the end is very influential. And it will help me a lot in getting into a nursing program after I take my pre-reqs.

Student (003) stated, “I used what I learned in CNA in my Nursing Prep class and I used my knowledge and skills to participate at HOSA.”

Student (004) commented,
We learned a lot. We learned bed, baths, and then how to walk patients with a disability. How to tell them what’s in front of them if they have a vision impairment and how to deal with dementia. Just a lot of different skills. How to deal with other patients, different patients.

Student (005) elaborated on specific skills:
CPR certification, starting to learn skills, hand washing. We went to the hospital and split up in groups and there was teeth washing, caring for the feet and hands, and then bed making, learning the skills for the CNA license. That’s really opened
my eyes. I mean this is what I want to do and, once we have the clinical experiences, that’ll probably open my eyes, too.

Student (007): “CPR training. Get your patient’s vitals and everything back to where they need to be and to execute it perfectly. Chain of infection, the CPR training, bed transfers, all the PPEs, and hand-washing.” Student (008) stated, “We’ve learned some skills. We’ve done hand-washing and bed-making for the nursing part, learning skills to get certified.”

Student (009) described skills experienced within the hospital setting:

Blood pressure, temperatures, all the vital signs, and then we’re actually working on denture care, how to make a bed with someone in the bed, hair and nail care. We’re going to get into shaving people’s faces. Since I started high school I always wanted to go into the health field and so that’s really what I want to do.

This course offers the C.N.A. certification. That will get me a step up and it will give me points towards the nursing program, which is what I want to get into.

After I do the nursing program I want to go further and do the nurse practitioner program.

The opportunity for students enrolled in the Nursing Preparation program to engage in CNA skills training and to attain certification has numerous benefits to those enrolled in the CTE program. It is both an educational and economic advantage for students specifying a choice of career and implementing postsecondary plans.

**Theme 2c: Nursing Preparation students specify their career choice through dual enrollment.** Dual enrollment offered an opportunity for high school students to attain college credit and be immersed in a college environment. Richard Lynch and Frieda Hill report in the 2008 edition of *Techniques* from various data sources that
students who dual enrolled were successful with postsecondary education. Lynch and Hill further state that this result was based on grades and earned credentials, less need for remediation, and improved confidence in the ability of students to handle college-level coursework (p. 31).

Students described the experience and influence of dual enrollment in college courses related to nursing as a high school student. Students who enroll in Nursing Preparation have the opportunity to take—as part of the Nursing Preparation course—two college classes during their senior year. Each of the classes occurs on the local community college campus, which is physically connected to the LISD TECH Center campus. Students are able to enroll in Medical Terminology for the fall semester and Body Structure & Function for the winter semester. Students described this influential experience in various ways:

Student (001) stated,

Taking the college class let me feel how college was like. I really enjoyed the teacher. I would definitely say that taking two college classes has impacted me a lot. I got to experience college before even going to college. I know how rigorous it is, how challenging it is, and how competitive it is. My friends saying, ‘I got an 82 on this test,’ but I got a hundred. Nursing is so competitive and it’s always going above the other. You’re always trying to strive to be the best. I see that in my college class. I would say the piece about growing up is definitely there with taking the college classes as well. It’s also more than just a foot in the door. I would say starting out we learned vital signs and we took baby steps towards this. Now I can tell you the drop of blood through the heart; I could name certain muscles on your body that I never thought I would be able to. The memorization
is crazy for me. I didn’t know that I’d be able to learn that much in that amount of time.

Student (002):

Dual enrolled through Jackson College Body Structure & Function was more in-depth than any other class that I’ve taken. It goes through every system and explains which one does what. It coincides with what diseases are related to each one. The college classes I feel are a lot more help because it gets me a step in the [right direction], a little further than most people because I actually have the experience of a college class already.

Student (003):

In my college class I was not into chemistry. I was more into biology. This class is about biology. It’s about the study of the human body. I need to know that to be a nurse. It’s really cool learning about the body and how everything works. I’ve really enjoyed how really well oriented it is, and this is what a real college class is, what a real college nursing class is. To learn how to balance my time well, this class really taught me how to balance my time. It’s a lot of studying and preparing for tests and quizzes, so I need to learn a lot, and really manage my time. I definitely know that I’m going into [nursing], but mainly Nursing Prep has just really brought it down to me that I need to study more. I’ll need to be more focused. Just because Nursing Prep, you have to be really focused, especially when you’re dealing with people’s lives. It’s just that it’s going to be ten times harder, and just this little bit of experience will help me when I actually get to college.

Student (004):
Mainly what led me to enroll in this course is just knowing that I’d be having a stronger fundamental understanding and background. I’d know for sure because it’s better to know than end up having to pay for something you’re not going to end up actually liking. Getting college credits that will actually transfer over to help you in your college career. Honestly just the fact that I know that I’m going to do things that are helping people--that is all I need. And so every single time that I see somebody smile just because I helped them is reassuring me, like this is definitely something that I want to go into. I honestly could not tell you. It’s usually my past that’s kind of just--my past experience with my grandma and stuff is what told me. And ever since then, every little experience I see keeps making my past experience stronger.

Student (005):

The college class in the Nursing Prep [program], Body Systems Functions was influential. Being involved in college classes I think opened my eyes because that’s my first experience with being dual enrolled and getting a feel for what college getting into nursing is going to be [like] next year. Body Structure & Function did offer influence. We had a really good professor and she made it fun. Learning about all the different body parts, how it works, what you’re actually going to experience, this is what’s going to happen if this scenario happens. That class was fun.

Student (007):

Unfortunately I haven’t been able to take a whole lot more medical classes. My general education credits is what I’ve been working on. I did take Medical Terminology, just a couple, but it still was a huge determining factor for me.
Student (008) was more elaborate with her response:

Really glad that we have this class. It showed me kind of how college is going to be. It is a pretty hard class. I’ve definitely had to learn some new studying skills. I actually like studying for the tests. I guess it just kind of in a way made me feel better about college. Knowing what’s ahead of me and made me think more about the classes I’ll be taking in college relating to becoming a PA. Last chapter we learned about nerves and stuff like that and so that was just really challenging.

Learning about the body has shown me parts I’m interested in, maybe for a specialty. We’ve learned about the skin and it piqued my interest learning about that subject.

Student (009) describes the experience:

Taking a college class, that’s where I’m getting a lot. I’m interested in what we’re doing in the college class. That’s kind of pushing me towards it. I can get credit for it, which is awesome. Being dual enrolled helped me mature in a way and realize what I actually want to do in life. We’re treated like adults. Probably the college classes the most because I didn’t know all of the stuff going on in the college class. I had a general knowledge but after I did the classes I felt like I knew more and that was for sure what I wanted to do. I wasn’t really bored in those classes. It all interested me. When I was younger, science classes were so boring, but that was when we’re talking about the earth and the sun. [Laughter] It was the human body and all that stuff that really confirmed it. Probably the all-around content because I got a deeper knowledge that I’d already had a basis for.

The opportunity to dual enroll in two courses as part of the Nursing Preparation program served as an influential aspect for students, through academic attainment
specific to technical skills and through the various facets of preparing for a college environment. Lynch and Hill (2008) commented about the results of a multiphase, mixed methods study that occurred in the state of Georgia. The study pertained to dual enrollment and occurred over a period of three years. Lynch and Hill stated, “A unique aspect of this study is its contribution to understanding how career and technical education (CTE) differs from more traditional academic emphases in dual credit, and how it can address the broader outcomes of workforce preparation and lifelong learning as well as college preparation” (p.31).

Research Sub question 3: What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence implementation to pursue a career in nursing?

“Implementation” refers to completing career-related exploration and training activities and strategically making decisions regarding the process to enter college and career.

Table 3 shows the two themes related to Sub-question 3 that emerged based on information gathered from individual interviews with students enrolled in the LISD TECH Center Nursing Preparation program: (3a) utilizing an attained CNA certification; and (3b) applying, being accepted to, and choosing a postsecondary institution to further postsecondary studies.
### Table 3

#### Developmental Task of Implementation

<table>
<thead>
<tr>
<th>Subject</th>
<th>Utilize CNA</th>
<th>College/ University Enrolled</th>
<th>Choice/ Degree of Certainty (May 2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(001)</td>
<td>Yes</td>
<td>Lourdes, BSN, CRNA</td>
<td>Yes/ Completely</td>
</tr>
<tr>
<td>2(002)</td>
<td>Yes</td>
<td>GVSU, Nursing</td>
<td>Yes/ 100%</td>
</tr>
<tr>
<td>3(003)</td>
<td>Yes (TBD-Injury)</td>
<td>Mercy College of Ohio (Toledo), RN, BSN</td>
<td>Yes/ Very Certain</td>
</tr>
<tr>
<td>4(004)</td>
<td>Yes</td>
<td>Spalding Univ. (Louisville, KY)</td>
<td>Yes/100%</td>
</tr>
<tr>
<td>5(005)</td>
<td>Yes</td>
<td>Univ of Toledo</td>
<td>Yes/ I'm going into nursing</td>
</tr>
<tr>
<td>7(007)</td>
<td>n/a</td>
<td>JC/LSD Academy 5th Year</td>
<td>Yes/ Very</td>
</tr>
<tr>
<td>8(008)</td>
<td>Yes</td>
<td>GVSU, NP, BSN</td>
<td>Yes/ Nursing Prep solidified (decision)</td>
</tr>
<tr>
<td>9(009)</td>
<td>Yes</td>
<td>GVSU, NP, OB/GYN</td>
<td>Yes/ 100%</td>
</tr>
</tbody>
</table>

**Theme 3a: Nursing Preparation students implement their career choice through utilizing an attained certification** (CNA). Students 18 years of age or older are able to attain certification as a certified nursing assistant (CNA). All of the students in this study said that they planned to exercise this option and seek employment as a CNA as they prepared to enter nursing school in the fall. The opportunity to utilize this attained certification as a viable employment option between graduation from high school and entering college, as well as while attending college to help offset expenses, was an asset and an influential aspect of implementing a postsecondary plans.
Theme 3b: Nursing Preparation students implement their career choice through implementing a postsecondary plan. This includes applying to, being accepted by, and choosing a postsecondary institution to further postsecondary studies. The students each offered insight to their respective postsecondary plan. This included aspects of Theme 3a, Utilizing an attained CNA certification and Theme 3b, Applying, being accepted to, and choosing a postsecondary institution to further postsecondary studies. Statements from the participants are illustrated through data collected, and extracted from, each respective student. Excerpts presented include the preliminary plans communicated during the December 1st interview and the area(s) of interest within the field of nursing. Each participant communicated aspects of implementing postsecondary plans, including the process to apply, be accepted to, and ultimately choose a college or university to further study nursing. The chosen postsecondary institution is documented for each participant. Each of the eight participants in this study chose nursing as a future career; however, I documented all influential experiences leading to a student’s choice of career, regardless of whether or not the choice of career was nursing. Participation with CTE opportunities often result in helping a student affirm what occupation to pursue, or not pursue, before a vital career decision is made.

Student (001) Implementing Postsecondary Plans. By the December 2016 interview, Student (001) had contacted several colleges and universities by e-mail or through phone calls. She specifically inquired about BSN programs and researched aspects of each school. She had applied to five colleges and had been accepted by four. Her preliminary plans were to attain a CNA license and pursue a BSN, graduate as an RN and eventually become a nurse anesthetist.
At the time of the May interview Student (001) had implemented a postsecondary plan, completing the developmental task to apply, be accepted to, and choose a postsecondary institution. She had chosen to attend Lourdes University after specifying plans to become a CRNA. She stated, “With administering anesthesia, it’s just like a step below an anesthesiologist, but also a step above being a nurse. I feel the aspect came from liking surgery and always liking the intensity of it.”

*Student (002) Implementing Postsecondary Plans.* By the December interview, Student (002) had applied to postsecondary institutions including Grand Valley State University, Davenport University, Wayne State University, Albion College, University of Michigan, and Michigan State University. She had chosen these colleges and universities for their nursing programs. She intended to pursue a nursing career working with pediatrics.

At the time of the May interview, Student (002) had implemented a postsecondary plan. She had chosen to attend Grand Valley State University to become an OB/GYN. She stated, “I’m going to take my pre-reqs and then after my first year I believe that I can apply for the nursing program. I think I’m going to [local assisted living facility] to get a job, not necessarily can, but to be able to work in that area.”

*Student (003) Implementing Postsecondary Plans.* By the December interview, Student (003) had applied to colleges and universities and intended to work as a CNA throughout the summer prior to attending college. She expressed her desire to attend a specific nursing college, Mercy College of Ohio, located in Toledo. She had applied and was awaiting acceptance. Although she was not certain, she stated a desire to work as a nurse in a setting related to emergency, OB, or surgery.
At the time of the May interview, Student (003) had implemented a postsecondary plan. She had chosen Mercy College of Ohio. She stated, “I plan to go to Mercy for four years to study in their BSN program. For two years you get your RN and I want to go one step ahead of an RN to get my BSN degree.”

*Student (004) Implementing Postsecondary Plans.* By the December interview, Student (004) had applied to several colleges and universities. However, she said that one university, Spaulding University, “is the one that I am definitely planning on going to.” She cited OB/GYN as an area of interest. She also stated, “Regarding attaining CNA certification, it’s a big step for me and I’m really excited for it.”

At the time of the May interview, Student (004) had implemented a postsecondary plan. As she had intended, she had chosen to attend Mercy College of Ohio to study OB/GYN. She stated, “I’ve always known I wanted to go into that; nothing has really changed.” Regarding utilizing the can, she said, “I’m going to try and look into different facilities where I can apply my CNA skills. It’s just a matter of finding certain ones for me to actually go to [work].”

*Student (005) Implementing a Postsecondary Plan.* By the December interview, Student (005) had applied to Kaplan University and was accepted into the nursing program. She stated a desire to study pediatric nursing or OB/GYN and earn a BSN. In addition, she intended to attain CNA certification and utilize the qualification to work in a nursing home. She expressed interest in Eastern Michigan University and University of Toledo, and had applied at other postsecondary institutions.

At the time of the May interview, Student (005) had implemented a postsecondary plan. She chose the University of Toledo with an interest in pediatric nursing. Regarding
utilizing the CNA certificate, she said, “The CNA license, you’re mostly going into a nursing home setting. I think it’s a good beginning job, working with older people.”

Student (007) Implementing a Postsecondary Plan. By the December interview, Student (007) stated he was “still looking at different nursing programs.” He expressed a desire to start as a nurse and then become a doctor. He stated he was working towards a short-term goal of earning a CNA by May, with a long-term goal of working as an RN and eventually becoming a pediatric [nurse] or doctor.

At the time of the May interview, Student (007) stated that he would continue enrollment as a 5th year student at JC/LISD Academy - A Regional Middle College. Following the 5th and final year of the program he would implement a postsecondary plan. He stated a desire to study pediatrics. He said, “That’s what I want to do. It hasn’t changed but I don’t think I was as solidified on it as I am now.” He said he had plans to attain CNA certification and apply to a local health care facility. Throughout the 5th year he would complete requirements for the Academy, hoping to job shadow or volunteer at a local medical care facility. In addition he planned to enroll in a college phlebotomy course, further studying aspects of nursing.

Student (008) Implementing Postsecondary Plans. By the December interview Student (008) had applied to various colleges and universities. She also expressed a desire to utilize an attained CNA certification throughout the summer, prior to attending college. She expressed interest in dermatology and pediatrics, with a long-term goal to eventually work as a physician’s assistant.

At the time of the May interview, Student (008) had implemented a postsecondary plan. She had chosen to attend Grand Valley State University. She stated, “Originally in the first interview I said that I wanted to be a physician’s assistant. Over the year through
nursing I’ve changed it to become a nurse practitioner. I would like being more patient-oriented versus disease-oriented, so that changed my mind.” She expressed a desire to focus on patient care: “I found I enjoyed learning the skills to take care of people. I knew that if I had chosen to become a PA there wouldn’t be the patient care as much as it would be with a nurse practitioner.” A plan to begin as a CNA was also communicated.

_Student (009) Implementing Postsecondary Plans._ By the December interview, Student (009) had applied to various colleges and had been accepted to her number one choice, Grand Valley State University.

At the time of the May interview, Student (009) had implemented a postsecondary plan. She stated a desire to eventually go beyond nursing, perhaps as an OB/GYN. She planned to utilize an attained CNA certificate, stating, “I plan to try to [work as a CNA] during college. This course offers CNA certification so that’ll get me a step up. It’ll give me points towards the nursing program, which is what I want to get into.” She had paid the housing deposit, orientation fee, and was enrolled in the pre-requisite classes for the nursing program.

**Major Themes**

Super’s Theory of Career Development, specifically the Exploration Stage, includes the developmental tasks of crystallizing, specifying, and implementing a career choice. The following themes emerged through the collective voice of high school seniors enrolled in a nursing preparation CTE program as they progressed through educational experiences, influencing the decision to pursue a career in nursing.

**Crystallization**

1a. Family involvement with health care

1b. Environmental influence
1c. Prior coursework & experiences

Specification

2a. Preliminary plans
2b. CNA training
2c. Dual enrollment

Implementation

3a. Utilize an attained CNA certificate
3b. Apply, be accepted to, and choose a postsecondary institution

Summary

The results of this study were communicated through the voice of seniors enrolled in the LISD TECH Center Nursing Preparation program during the 2016-17 school year. The data collected illustrate educational experiences that students identify as influencing the decision to pursue a career in nursing. Nursing Preparation students participating in this study identified family involvement, environmental influence, and prior coursework and experiences as influential as students crystallized the decision to explore nursing as a viable career. Preliminary plans, CNA training, and dual enrollment were identified as experiences which prompted the developmental task of specification. Finally, students identified the process of applying, being accepted to, and choosing a postsecondary plan as well as utilizing an attained CNA certificate as influential experiences pertaining to implementation.

Nursing Preparation students have the opportunity to explore various aspects of nursing as they progress through the career decision-making process. Furthermore, they are able to do so at a vital time in their educational pathway--their senior year--prior to
determining and implementing a postsecondary plan. Students enrolled in this CTE Nursing Preparation program chose to enroll in a year-long educational opportunity that ultimately expedited their career decision-making process, specifically the developmental tasks of specification and implementation. Based on relevant and related experiences, students arrived at this course after crystallizing nursing as a career interest through unique experiences that influenced their decision to enroll in the Nursing Preparation program. The fact that students who were enrolled in this CTE program crystallized a career decision influenced by their family, environmental aspects, and through prior coursework and experiences cannot be overstated. The transition to specifying and implementing a career choice prior to high school graduation was made possible by crystallizing the decision prior to entering Nursing Preparation their senior year. Having the opportunity to progress through these three developmental tasks on the way to implementing an informed postsecondary plan, based on relevant and influential experiences, is critical for some, but has potential to be beneficial for all.

Rather than explore a career interest throughout the entire exploration phase as 15- to 24-year-olds, this group of students positioned themselves to align with aspects of the exploration phase much earlier, and in a much more succinct manner, prior to entering a postsecondary experience. Although Super’s Theory of Career development is as true today as it was when first published, students enrolled in this CTE program and participating in this study chose to explore a career after participating with opportunities that empower them to attain an important outcome--making an informed career choice--before substantial investment was made towards a postsecondary educational experience or career.
Participants stated that experiences influencing crystallization, such as those pertaining to family involvement in health care and environmental influences, often began at an early age. In addition, participants illustrated the most prominent theme within crystallization--prior coursework and experiences--as an influential experience which occurred throughout the students’ junior year leading to enrollment in Nursing Preparation. This was communicated at interviews that occurred in December of the students’ senior year when participants were asked, “Please tell me how certain you are, in the career exploration process, regarding your decision to pursue a career in nursing.” Through family involvement in health care, environmental influences, and coursework and experiences prior to participating with the Nursing Preparation program, students were empowered to transition from crystallizing a career choice to the developmental task of specification as they entered their senior year. Having crystallized the decision to pursue nursing as a career, students had the opportunity as they began the Nursing Preparation to focus on the developmental task of specification. Students were empowered as they entered their twelfth-grade school year to transition from a tentative, general preference of nursing to identifying a more specific area of study within the occupation. Students participating in the study communicated that preliminary plans, CNA training, and dual enrollment were influential to specifying a choice of career. Finally, participants in the study articulated the experience of applying, being accepted to, and implementing a postsecondary plan and utilizing an attained CNA certificate as influential experiences prompting the developmental task of implementing a choice of career.

Students arrived in Nursing Preparation as seniors having already crystallized a decision to pursue nursing as a career. Specifying an area of nursing in which to further
study then occurred through additional experiences which influenced the decision-making process. Finally, implementing a postsecondary plan took place as students completed their senior year and prepared to enter further training and education in a deliberate and intentional manner. Chapter 5 illustrates the relationship of results from this study with existing studies. In addition, implications for future research and other implications are discussed.
CHAPTER V
DISCUSSION

Lewis and Kosine (2008) state that the decision for most high school students to study certain occupations is as much exploration as it is preparation for employment. However, many students do not take advantage of career and technical education (CTE) programs that, through various experiences and opportunities, empower students to master the developmental tasks as they explore, and subsequently choose, a career. Prior to and throughout this exploration process, students are engaged in the developmental tasks of crystallizing, specifying, and implementing the choice to pursue nursing. Many high school students interested in nursing as an occupation do not choose to engage in a CTE program and pass up an opportunity to progress through the exploration stage in a much more succinct, deliberate, and intentional manner. While CTE continues to serve as an educational option for many high school students interested in nursing, its value as a means for students to crystallize, specify, and implement the choice to pursue the high-wage, high-skill, and high-demand career of nursing is not understood to the extent possible. This valuable asset is overlooked as high school students are often unaware of the specific experiences that influence a decision to pursue nursing.

This study was a test of Super’s Career Development Theory, exploring the career decision-making process of nursing preparation high school students throughout their senior year. Nursing Preparation students through personal interviews illustrated how each developmental task was mastered, leading to a determination pertaining to the next stage of their career (Brown & Lent, 2005). Recommendations for practitioners and researchers involved with providing and promoting career development will be shared. Recommendations for future research will also be offered.
**Summary of Major Results**

Twelfth-grade students who enroll in the LISD Nursing Preparation CTE program do so, in part, as a means to engage in relevant exploration activities and experiences related to the career of nursing. These students have the opportunity to, and most likely will, continue to explore careers throughout their lifetime. However, students who enroll in the LISD TECH Center Nursing Preparation program chose to expedite their career decision-making process through experiences which influenced their decision at a pivotal time in their lives. Rather than explore a career interest throughout the entire exploration stage as 15- to 24-year-olds, students enrolled in the Nursing Preparation program--at the 16- to 18-year-old time frame--positioned themselves to crystallize, specify, and implement a specific postsecondary plan much earlier than other youth in the exploration stage. Furthermore, Nursing Preparation students do so in a much more succinct manner prior to entering a postsecondary experience. All the students participating in this study made a decision to pursue a degree related to nursing immediately following their twelfth-grade year. For students enrolled in this course, this important outcome--making an informed career choice--occurred before substantial investment was made towards a postsecondary educational experience or career.

Super’s Theory of Career Development is applicable to most individuals, including the students who participated with this study, who throughout their lifetime will likely progress through all five of Super’s (1990) stages. However, by participating in the Nursing Preparation CTE program, students had the opportunity to explore specific aspects of nursing. CTE programs, with their intensive career exploration activities, is the perfect way to accomplish Super’s exploration stage, specifically the process of crystallizing, specifying, and implementing a postsecondary plan. Nursing Preparation
students provided the data as I, the researcher, answered the research questions illustrating how influential experiences aligned with the exploration stage of Super’s theory throughout their twelfth-grade experience. Super’s Theory of Career Development, specifically the exploration stage, includes a timeframe whereby students, through career-related exploration activities, had the opportunity to learn more about their abilities and skill set, develop self-concept, and engage in influential experiences. Not only were they influenced, the experience confirmed their decision and strengthened their resolve to pursue the career by the end of their senior year in high school.

Data was collected through two interviews to help answer the research questions. The overarching research question, “What educational experiences influence a twelfth-grade CTE student’s decision to pursue a career in nursing?” was ultimately answered through seeking greater meaning of the participants’ lived experience. Interview questions prompted participants to provide insight regarding each research question, which was aligned with a respective developmental task. Students offered insight to their experiences that prompted crystallizing, specifying, and implementing a choice of career.

**Research Sub-question 1: What experiences through a twelfth-grade student’s Nursing Preparation CTE experience prompt the crystallizing process to pursue a career in nursing?**

Research Sub-question 1, pertaining to students’ crystallizing a career choice, was answered throughout the first interview. Nursing Preparation students articulated experiences aligned with themes of *family involvement with health care, environmental influences, and prior coursework and experiences*. These influential experiences prompted interest in this health science-related career and led Nursing Prep students to
enroll in this CTE program. Nursing Preparation students in this study share common experiences that influence crystallizing a decision to pursue nursing, and prompting enrollment in the LISD TECH Center Nursing Preparation course. Students identified *family involvement with health care* such as having a grandparent or sibling employed as a health care professional and *environmental influences* such as media as influential experiences that occurred between youth and the end of their eleventh-grade year. Nursing Preparation students cited the most prominent theme, *prior coursework and experiences*, as a strong influence towards crystallizing a decision to transition from a tentative, general preference of career pathway to a more specific career choice.

Nursing Preparation students master this developmental task of crystallizing a decision by the end of their junior year, prior to beginning the Nursing Preparation course, articulating their level of certainty during the December 1st interview. This level of certainty was based mostly on influential experiences which occurred through prior coursework and experiences. Five of the eight students completed the LISD Health Care Careers course and the other three participants completed advanced coursework at their resident district. By the time the Nursing Preparation course began in September 2016, all eight students had transitioned from the developmental task of crystallizing to the second developmental task of specifying. Students involved with this study progressed through the task of crystallizing and began the pursuit of specifying a career choice influenced by experiences facilitated through the Nursing Preparation program.

**Research Sub-question 2: What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence specification to pursue a career in nursing?**
Nursing Preparation students master the developmental task of specifying or determining an occupational preference once they are influenced by experiences related to preliminary plans, CNA training, and dual enrollment. Throughout their senior year, Nursing Preparation students engage in experiences and, based on these experiences, are empowered to continue specifying an area or areas such as pediatrics, CRNA, and OB/GYN within the nursing profession that are of interest. Through mastering this developmental task, Nursing Preparation students are in position, by the time a choice of career is made, to align other aspects of this decision with the postsecondary institution that best suits each student’s chosen program, along with steps that may be taken to grasp both academic and technical skills prior to arriving on campus. Nursing Preparation students transition from crystallizing to specifying a career choice throughout their senior year as influential experiences further affirm aspects of the decision-making process. Participants were able to offer experiences and opportunities that occurred throughout the school year at the interview in December, and with greater clarity during the interview in May. Students provided insight regarding which experiences offered the greatest influence, such as clinical rotations within prior coursework and experiences, regarding the decision to pursue a nursing career and, furthermore, explained how each of the experiences and opportunities influenced their decision. Participants described influential experiences pertaining to academic coursework, volunteerism, practical experiences, leadership opportunities, work experiences, and job shadowing that influenced their career decision-making process. Nursing Preparation students participating in this study described during each of the two interviews how the influential experiences helped specify the choice to pursue a career in nursing.
Following preliminary plans communicated during the first interview in December, students engaged with experiences such as dual enrollment and CNA training that influenced specifying specific areas within the particular nursing field that was of interest to each respective participant. Each student described why this specific area of nursing was of interest and said whether a preference to pursue nursing changed into a decision or determination to pursue this specific area of a nursing career.

**Research Sub-question 3: What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence implementation to pursue a career in nursing?**

By May, nearing completion of the year-long CTE course, Nursing Preparation students make substantial progress towards the developmental task of implementation. Nursing Preparation students actively implement postsecondary plans and they complete career-related exploration and training activities and strategically make decisions regarding the process to enter college and career.

Preliminary plans were stated by students during the December interview after they had crystallized a decision to pursue nursing. By May, participants were prepared to articulate steps taken to pursue postsecondary training and education after high school. Furthermore, each participant outlined the process and plan to completing career-related exploration and training activities. Students spoke of the influential experiences pertaining to implementing a plan to enter college and career, including applying, being accepted to, and choosing a postsecondary institution and utilizing an attained CNA certificate. Both were identified as influential experiences pertaining to implementation.
New Conceptual Framework

Compared to the initial conceptual framework which proposed potential influences in Chapter 1, the new conceptual framework illustrates the specific themes or influential experiences within each of the three developmental tasks. Students enrolled in the LISD Nursing Preparation CTE program engaged in a process of crystallizing, specifying, and implementing a postsecondary plan to pursue a career in nursing.

It was appropriate for Super’s Theory, specifically the exploration stage, to focus on adolescents’ experience through a Nursing Preparation CTE course. Results of this study illustrate how students’ influential experiences align with the exploration stage of the theory throughout their twelfth-grade CTE experience. Super’s Theory of Career Development, specifically the exploration stage, includes a timeframe whereby students, through career-related exploration activities, have the opportunity to learn more about
their abilities and skill set, develop self-concept, and engage in experiences which may influence the career decision-making process.

Influential experiences, as illustrated within the conceptual framework, were captured through the students’ voice. Findings offer a comprehensive understanding of the career decision-making process of Nursing Preparation students as they progressed through developmental tasks of crystallizing, specifying, and implementing a choice of career. Brown and Lent (2005) state, “The social expectation that adolescents seek occupations congruent with their abilities and interests is communicated to them in the form of vocational development tasks” (p. 49). Like many others, twelfth-grade students who enroll in Nursing Preparation CTE programming have the opportunity to continue to explore careers throughout their lifetime. However, Nursing Preparation students chose to expedite their career decision-making process prior to graduating from high school. Rather than explore a career interest throughout the entire exploration phase as 15-24-year-olds, Nursing Preparation students at the 17-18-year-old time frame positioned themselves to align with aspects of the exploration phase much earlier, and in a much more succinct manner, prior to entering a postsecondary experience during the 19-24-year-old time frame. Nursing Preparation students chose to explore a path throughout or immediately following their twelfth-grade year so that an important outcome—making an informed career choice—can occur before substantial investment is made towards a postsecondary educational experience or career.

Nursing Preparation students offered insight to the influential experiences as they immersed themselves in relevant career-related experiences, academic and technical activities, and postsecondary planning. Brown and Brooks (1996) stated that, during this exploration stage, “occupational daydreams crystallize into a publically recognized
vocational identity with corresponding preferences for a group of occupations at a particular ability level” (p. 132). CTE has potential to help with this career development process and, if successful, empowers students to determine a specific choice of career and implement plans for further education and training. Results of this study support Super’s theory providing insight regarding specific influential experiences through CTE that expedite the exploration stage of career development and choice for youth. Through developing and understanding one’s self-concept through a CTE experience, students are able to understand more of themselves and, in a relatively short timeframe, crystallize, specify, and implement their career choice through influential experiences leading to a decision to pursue a nursing career.

**Relationship of Results to Existing Studies**

Super’s Theory of Career Development remains an influential career development theory. Super applied five stages based on age ranges and believed that individuals transition through the five stages over the course of a lifetime. He stated that an individual’s transition to each stage is based on various experiences, chosen and otherwise. Super stated that the stage of “exploration” generally occurs for individuals age 15 through 24. This, he believed, was a time in which individuals explore self-concept as well as interests to form a tentative choice of career. However, research is limited to how the exploration stage and the three developmental tasks within this stage are mastered through a CTE program of study.

Lewis and Kosine (2008) stated that few studies have explicitly examined the effect on career development of students participating in CTE courses and suggest a need for further research to determine which aspects of CTE programs aid students with the career development process. Unfortunately, studies focused on career exploration process behaviors and developmental tasks, and what influence these have on crystallizing career
choice, are deficient (Esters, 2008). Expanding the body of research related to Super’s exploration stage of career development, specifically the developmental tasks of crystallizing, specifying, and implementing a career choice, is necessary for those who seek to further understand, promote, and potentially benefit from career development efforts through CTE. There is little existing research pertaining to the experiences which high school students themselves identify as influential to the career decision-making process. Data collected from this study help fill the void of research.

Brown and Lent (2005) state the following regarding Super’s Career Development Theory: “Within this conception, understanding the life stages and roles of individuals is critical to helping them frame their needs and expectations” (p. 633). Super’s theoretical framework and the practical application of establishing and implementing experiences which students themselves cite as influential within Nursing Preparation CTE programs has great potential to empower students confirming a choice of career. The findings of this study align with Super’s theoretical framework to inform educational practice and is supported by existing literature. Brown and Lent (2005) state, “Scientifically informed practice first requires accurate knowledge of relevant career theories and the research derived from them” (p. ix).

Implications for Future Research

Super communicated, in Career education and the meanings of work (1976), general objectives of career education. He called on educators “To make these experiences available in ways appropriate to all students at each stage of their formal and continuing education” (p. 43). CTE has potential to be part of the solution for all students. This study was a “test case” of Super’s theory and explored each developmental task as described by high school seniors throughout their experience enrolled in a Nursing Preparation CTE program. The results of the study, as illustrated in the new conceptual
framework, align well with Super’s theory and the developmental tasks throughout the exploration process. As Nursing Preparation students developed a sense of self and an understanding of the world of work, they progressed through a process of exploration crystallizing the preferences towards a given career (Cleveland, 2013).

In addition, the experiences described by participants followed a timeline of progression that was in line with the research questions as well as the dates of the first and second interviews. Super’s theory is as true today as it was when published in 1976. He recognized the necessity for students, such as the Nursing Preparation students enrolled in this CTE program, to be ready to adapt to various successes and challenges in today’s work environment (Super, 1957; Savickas, & Super, 1996). However, students participating in this study were able to do so while enrolled in high school, prompting an increased degree of certainty to their choice of career. Jones and Chenery (1980), Holland and Holland (1977), Osipow, Carney, and Barak (1976) demonstrated empirically that career decisiveness is a multidimensional construct that measures an individual’s degree of certainty or clarity in expressed career choices. Results of this study illustrates that CTE provides experiences such as dual enrollment, and CNA skill attainment that influence a career decisiveness and a degree of certainty for students who chose to pursue nursing through this educational opportunity. Research exists to validate the value of educational experiences related to career exploration (see Esters, [2008]; Drage, [2009]; Dare, [2009]). Results of this study indicate that CTE provides an opportunity for students to condense and expedite the exploration stage as the three developmental tasks are mastered while in high school and before initiating plans for postsecondary education and a career.
There were two specific experiences I had while serving as a CTE administrator that prompted me to recognize a need for research related to the career decision-making process of students enrolled in a high school CTE nursing preparation program. On a broad scale I witnessed, through a county-wide scholarship reception, students from the same high school choosing to study the same occupation (nursing) at the same post-secondary institution following high school. Some students received a LISD TECH Center scholarship as they had participated with the nursing preparation program. Other students received a scholarship based on academic merit through coursework completed at their resident high school. Students from the same high school with the same career choice had chosen two very different paths in which to explore nursing as an occupation. This prompted me to contemplate what educational opportunities the students participating in the LISD TECH Center program had experienced that the students in the general education setting had not.

In a more specific scenario, there was a student who had participated with the LISD TECH Center Health Care Careers program her junior year. She then enrolled in the Nursing Preparation program her senior year. She did very well in various areas of both CTE programs. This student succeeded academically, with technical skills, and through involvement with leadership activities. She graduated from high school after completing these two health science-related CTE programs and chose to study accounting. This was a profound moment for me as I questioned what specific experiences throughout these two programs influenced her decision to choose a career other than nursing. The specific experiences which influenced her decision to make this choice of career were unknown. As I prepared to research this topic and conducted a
literature review, limited research was available regarding the influence of CTE experiences pertaining to the career decision-making process of high school students.

The focus of this study was to test Super’s Theory of Career Development through a CTE perspective. Results of this research will help fill the gap in literature regarding this topic and be accessible to those researching and promoting career exploration opportunities for high school students. Much of the literature related to career exploration and choice is focused on college or early adulthood. In this study I focused on the viable educational option of CTE for students much earlier in Super’s exploration stage, specifically throughout the 15-18 age range. Findings of this study contribute to a body of knowledge pertaining to the career decision-making process of high school students. The timing of this study aligns with current educational reform efforts initiated through Michigan Department of Education and the Department of Talent and Economic Development. Contributions, therefore, will add knowledge and understanding regarding this topic and potentially have an immediate impact for those facilitating efforts related to career exploration through CTE. Efforts by those seeking to expand CTE opportunities for high school students throughout the state may utilize the contribution of knowledge from this study to focus on areas determined to influence developmental tasks within the exploration stage through a CTE experience.

Finally, due to standard academic and technical expectations within all CTE programs, contributions of this dissertation may be transferable to all CTE programs. Those seeking to conduct further research may utilize a similar methodology as the one I used with this study to study influential experiences of other CTE programs. Existing literature does not currently illustrate what students enrolled in a nursing preparation CTE course cite as experiences which influence their decision to pursue a nursing career.
However, with the results of this study, a more deliberate use of limited time and financial resources may provide opportunities that all students engaged in CTE programs can use, regardless of program, to influence their career decision-making process. This study tested Super’s theory and resulted in a contribution to the body of knowledge for those who will, in the future, research implications and opportunities to better understand advantages of CTE.

**Implications for Legislators and Educational Leaders**

There is an increased emphasis to promote career and technical education opportunities throughout the state of Michigan. Governor Rick Snyder stated, “Students need better access to career pathways and schools need more support to enhance programs if Michigan is going to close the talent gap and continue building a more prosperous future”. He communicated the Michigan Career Pathway Alliance recommendations which he stated, “are essential to close the talent gap, boost opportunities for every student” (Michigan.gov). Governor Snyder has initiated a collaborative effort between Talent and Economic Development (TED) and K-12 education, prompting leadership from TED Director Roger Curtis and State Superintendent Brian Whiston to offer recommendations addressing the continued need for career exploration. One recommendation is to require a career exploration course in high school prior to students’ choosing elective classes. Although many work tirelessly to promote career and technical education opportunities, the specific merits of CTE are not generally well known and, therefore, not publicized as tremendous assets to students as they consider career exploration through a CTE program. As this effort continues, valid research will be necessary to educate and empower leaders to address areas of opportunity. Findings of this study could aid legislators and educators to further promote
CTE. All CTE programs include a career exploration component, which directly addresses the recommendation from Curtis and Whiston. In addition, findings describe in great detail how influential experiences through a Nursing Preparation program as an example, both in theory and in practice, guide students towards a choice of career through a deliberate and intentional fashion, mastering developmental tasks in an expedited, yet thorough, approach. Findings of the study detail important aspects of the career development process and career development is certainly part of educational reform efforts (Dykeman et al., 2003). Valid research pertaining to youth and CTE can only strengthen educational reform and the collaborative effort by TED and the Michigan Department of Education as they develop and implement a comprehensive plan to strengthen CTE.

**Implications for Practitioners**

CTE directors and instructors of CTE programs such as health sciences may benefit from knowing which educational experiences and opportunities influence each developmental task and prompt students to master specific tasks as they successfully transition through the exploration stage. Furthermore, participation in exploratory activities such as clinical rotations, academic and laboratory coursework, and student organization activities within a Nursing Preparation course promotes an understanding of self and the environment that enables people to develop realistic career goals and plans (Sugalski & Greenhaus, 1986).

Due to standard academic and technical expectations within all CTE programs, experiences identified by nursing students in this study have the potential to be transferable to all CTE students. Existing literature does not currently illustrate what students enrolled in a Nursing Preparation CTE course cite as experiences which
influence their decision to pursue a nursing career. However, with the results of this study, a more deliberate use of limited time and financial resources may provide opportunities that all students engaged in CTE programs can use, regardless of program, to influence their career decision-making process.

**Implications for Students**

Brown and Brooks (1996) stated that, during this exploration stage, “occupational daydreams crystallize into a publicly recognized vocational identity with corresponding preferences for a group of occupations at a particular ability level” (p. 132). One participant in this study described her desire to be more than an average citizen. She communicated that she would like to “Be like a hero in my own way, taking care of people and serving my community.” She continued, “I always wanted to do something important. I wanted to be a hero and I can’t fly or anything like that, but saving people’s lives in a general aspect, I think that would be my goal for the future, and that’s why I chose nursing.” Another participant commented on her experience with the Nursing Preparation program: “It kind of just solidified the fact that I want to help people who can’t help themselves.”

High school students, and their families, deserve the opportunity to make an informed decision about postsecondary planning. Career exploration experiences provide students an opportunity to collect and analyze career-related information in order to enhance their career management process (Esters, 2008). Engaging in practical, hands-on experiences through CTE prior to choosing a college or university is a valuable experience that is available to, but not taken advantage of, by many high school students. In many cases they and their parents end up choosing a college or university based on little to no knowledge or practical experience of the career pathway or occupation in
which they intend to study. Students enrolled in the LISD TECH Center Nursing Preparation program chose to expedite the exploration stage at a crucial time. Super states that the exploration stage usually occurred in the age range of 15-24, while individuals explore occupational preferences. However, the Nursing Preparation program, and experiences which influence the career decision-making process for those enrolled, concentrates this stage into a shorter timeframe allowing for strategic use of resources, including financial, so that investment of time and money is used more efficiently. Rather, it is used to implement and achieve outcomes and goals. Because the stage of exploration and the developmental tasks align so well with this educational experience, and in theory with all health science-related CTE programs, duplication of experiences which students cite as influential such as offering dual enrollment can be replicated to affect more students enrolled in this career and other pathway.

Students, through understanding, accepting, engaging, and mastering the developmental tasks, were by nature more cognizant of intentionally progressing from one developmental task to the next. Placing students in situations and experiences that are recognized by their peers as influential is a powerful tool for youth making a life-altering decision.

This study focused on high school seniors who had enrolled in Nursing Preparation at the LISD TECH Center. Future research based on the structure of this study could be replicated in other areas of CTE to better understand experiences that high school students cite as influential. Based on results, practitioners within CTE could use aspects as deemed by the consumers--the students themselves--as influential to initiate experiences whereby students could implement informed postsecondary plans pertaining to other occupations.
The participants in this study stated their intentions for a postsecondary education while implementing the decision to pursue nursing. Future research could follow up with the eight participants in this study to learn whether and how the postsecondary plans changed and what influential experience led to modification of plans. Furthermore, further research with the same subjects over time could provide information regarding the remaining three stages of Super’s theory.

**Limitations of the Research**

The small sample size and the relatively similar academic and social background of participants limits the study in its ability to represent the experiences of all CTE students. A study with additional participants throughout multiple CTE programs may have uncovered additional experiences influential to the career decision-making process. Interviewing students enrolled in CTE programs throughout the United States may have offered greater insight to experiences that students found helpful while enrolled in a CTE program.

**Summary**

The purpose of this study was to explore the lived experiences of twelfth-grade nursing preparation CTE students by describing and interpreting how their CTE experience influenced their decision to pursue a career in nursing. This study tested Super’s theory and resulted in data pertaining to what students describe as influential experiences aligned with the three developmental tasks. Findings determined through this study offer implications for researchers and practitioners furthering knowledge, understanding, and advantages of CTE.
REFERENCES


Retrieved [2016] from
http://www.ualberta.ca/~iiqm/backissues/5_1/html/fereday.htm


Michigan Department of Labor and Economic Growth, Office of Career and


Washington, DC. Retrieved from
https://www2.ed.gov/about/offices/list/opepd/ppss/reports.html#cte


Appendix A - Definition of Terms

The following operational definition of terms is provided to aid the reader in understanding the meaning of developmental tasks, which include crystallization, specification, and implementation.

**Crystallization**, as it pertains to the career decision-making process, is the developmental task of transitioning from a tentative, general preference of career pathway to a more specific career choice. The process may involve incorporating a career interest with coursework, relevant technical and academic experiences, volunteerism, job shadowing, and involvement with leadership organizations.

**Specification**, as it pertains to the career decision-making process, is the developmental task of determining an occupational preference. Although during specification there is little commitment and the choice to pursue a specific career may remain tentative, more specific exploration activities and opportunities may lead to affirmation, and provide clarity to what area of a specific career is of interest as a decision whether or not to pursue a career is considered. During specification, preferences become choices when acted upon by the student.

**Implementation**, as it pertains to the career decision-making process, is the developmental task of completing career-related exploration and training activities and strategically making decisions regarding the process to enter college and career.
## Appendix B – Data Collection Instruments

<table>
<thead>
<tr>
<th>Overarching Research Question: What educational experiences influence a twelfth-grade CTE student’s decision to pursue a career in nursing?</th>
<th>Interview Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. What experiences through a twelfth-grade student’s Nursing Preparation CTE experience prompt the <em>crystallizing</em> process to pursue a career in nursing?</strong>&lt;br&gt; <em>Crystallizing - transitioning from a tentative, general preference of career pathway to a more specific career choice.</em></td>
<td><strong>1.0 What interested you in this health science-related career?</strong></td>
</tr>
<tr>
<td><strong>1.0 What interested you in this health science-related career?</strong></td>
<td><strong>1.1 Please tell me about the experiences that led you to enroll in the LISD TECH Center Nursing Preparation course.</strong></td>
</tr>
<tr>
<td><strong>1.1 Please tell me about the experiences that led you to enroll in the LISD TECH Center Nursing Preparation course.</strong></td>
<td><strong>1.2 Please tell me how certain you are, in the career exploration process, regarding your decision to pursue a career in nursing.</strong></td>
</tr>
<tr>
<td><strong>1.2 Please tell me how certain you are, in the career exploration process, regarding your decision to pursue a career in nursing.</strong></td>
<td><strong>1.3 Please tell me about the influential experiences facilitated through the nursing preparation CTE program that have influenced your level of certainty to pursue a nursing career.</strong></td>
</tr>
<tr>
<td><strong>1.3 Please tell me about the influential experiences facilitated through the nursing preparation CTE program that have influenced your level of certainty to pursue a nursing career.</strong></td>
<td><strong>1.4 What experiences and opportunities throughout this school year have had the greatest influence regarding your decision to pursue a nursing career? Please explain how each of these experiences and opportunities influenced your decision.</strong></td>
</tr>
<tr>
<td>1.5 Please tell me about any academic coursework, volunteerism, practical experiences, leadership opportunities, work experiences, or job shadowing that influenced your decision to pursue a career in nursing. Please tell me how these experiences helped crystallize your choice to pursue a career in nursing.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td>2. What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence specification to pursue a career in nursing?</td>
<td></td>
</tr>
<tr>
<td>Specification - determining an occupational preference</td>
<td></td>
</tr>
<tr>
<td>2.1 Is there a specific area within the nursing field that you believe is of interest to you? Please tell me why this specific area of nursing is of interest to you.</td>
<td></td>
</tr>
<tr>
<td>2.2 Has a preference to pursue nursing changed into a decision or determination to pursue this career? If so, at what point this year did this decision or determination occur?</td>
<td></td>
</tr>
<tr>
<td>3. What experiences through a twelfth-grade student’s Nursing Preparation CTE course influence implementation to pursue a career in nursing?</td>
<td></td>
</tr>
<tr>
<td>Implementation - completing career-related exploration and training activities and strategically making decisions regarding the process to enter college and career</td>
<td></td>
</tr>
<tr>
<td>3.1 If you have made a decision to pursue a career in nursing, what steps have you taken to pursue postsecondary training and education after high school?</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C – Informed Consent Forms

Informed Consent
Western Michigan University
Department of Educational Leadership, Research and Technology

Principal Investigator: Dr. Richard Zinser, Associate Professor
Western Michigan University

Student Investigator: Ryan L. Rowe, Western Michigan University

Title of Study: High School Seniors’ Educational Experience Influencing the Decision to Pursue a Career in Nursing

You are invited to participate in a research project titled “High School Seniors’ Educational Experience Influencing the Decision to Pursue a Career in Nursing”. The research study is conducted by Ryan L. Rowe, a doctoral student in the Career and Technical Education Leadership doctoral program at Western Michigan University, under the direction of Dr. Richard Zinser, Associate Professor. This consent document will explain the purpose of this research project and will go over the time commitments, the procedures used in the study, and the risks and benefits of participating in this research project. Please read this consent form carefully and completely and please ask any questions you may have.

The following information serves to assist you in deciding whether you wish to participate in this study as well as to inform you that you are free to decide not to participate in it, or to withdraw at any time, without affecting your relationship with the researchers or with Western Michigan University.

What are we trying to find out in this study?

The purpose of this study is to explore the lived experiences of twelfth-grade nursing preparation CTE students by describing and interpreting how their CTE experience influenced their decisions to pursue a career in nursing.

Who can participate in this study?

This study seeks participants who are twelfth-grade students enrolled in the Nursing Preparation CTE program for the 2016-17 school year offered on-site at the LISD TECH Center.

Where will this study take place?
If you choose to participate, we will meet in a location that is mutually convenient, and where you feel comfortable discussing your experiences.

**What is the time commitment for participating in this study?**
If you choose to participate, you can expect to spend approximately no more than 60 minutes for each of the two interviews, and approximately an additional 60 minutes to review, edit if necessary, and approve a transcript of the interview.

**What will you be asked to do if you choose to participate in this study?**
If you decide to participate, you will be interviewed twice, once in December and once in May. Each interview will last no more than 60 minutes. Many students, such as you, take advantage of career and technical education (CTE) programs that allow opportunities, academic and technical, to explore aspects of a career. More specifically, throughout the Nursing Preparation course you may have the opportunity to engage in developmental tasks in order to crystallize, specify, and implement a career choice. If you choose to participate you will be asked to share aspects of your individual progress story specifically related to experiences which influence your decision to pursue a nursing career. You will have the opportunity to illustrate how each developmental task is mastered, leading to a determination regarding the next stage of your career. Audio recording equipment in the form of a laptop computer and a LiveScribe SmartPen™ will be used to document, and ensure accuracy of, the information received. You may request the interviewer to turn off audio recording at any time during the interview.

Typed transcripts will be produced and shared with you, inviting you to provide clarifications to ensure that they accurately represent your comments. These transcripts will be maintained in a secure location in my home office. The audio recordings will be deleted once you are review and confirm accuracy of the transcripts.

Your participation will remain confidential, known only to the researcher. Your name will be identified with a code, stored in a secure location separate from all other data. Electronic files will be password protected. Only with your explicit permission will any discussion regarding your participation be handled through email or other electronic correspondence.

**What information is being measured during the study?**
This is a qualitative study using a phenomenological interview process. I will analyze the transcripts of each interview to identify if there are overarching themes regarding the experiences of those who attend the LISD TECH Center Nursing Preparation CTE program. Eight students will be interviewed and responses will be utilized to better understand the decision-making process through specific educational experiences leading to a determination to pursue a career in nursing. I will specifically look for themes related to experiences that empower a student to develop and plan a tentative goal related to a career (crystallization), begin to affirm the goal through influential experiences
(specification), and determine a path to further pursue the goal (implementation). A student’s progress story regarding his/her CTE experiences, specifically a nursing preparation program, has the ability to illustrate how each developmental task is mastered, leading to a determination regarding the next stage of their career professional and academic identity formation.

**What are the risks of participating in this study and how will these risks be minimized?**
There are no known risks of participating.

**What are the benefits of participating in this study?**
As a participant, you may benefit through having an opportunity to share your progress story regarding his/her CTE experiences, and through learning about how experiences offered through a CTE program empowers students to develop and plan a tentative goal related to a career (crystallization), begin to affirm the goal through influential experiences (specification), and determine a path to further pursue the goal (implementation).

**Are there any costs associated with participating in this study?**
There are no costs associated with participating in this study.

**Is there any compensation for participating in this study?**
There is no compensation for participating in this study.

**Who will have access to the information collected during this study?**
Your participation will remain confidential, known only to you and to me and the Career Preparation Services Coordinator assisting with the interview process. The results of this study will first be presented to the dissertation committee. I will ensure that your identity cannot be associated with the results or presentation. I will do this by requesting or assigning a pseudonym, and assigning a code to use for data rather than your name. A document that associates your name with the assigned code will be kept in a secure location within my home office through the duration of the study, and will then be destroyed as required by the Western Michigan University Human Subjects Review policy.

Results of the study may also be presented at professional conferences or submitted for publication, whereby I will follow the same protocol as with the initial presentation to my program colleagues, ensuring confidentiality of your participation and identification.
What if you want to stop participating in this study?
You can choose to stop participating in the study at any time for any reason. You will not suffer any prejudice or penalty by your decision to stop your participation. You will experience no consequences if you choose to withdraw from this study. You are not waiving any legal claims, rights or remedies because of your participation in this research study. The investigator can also decide to stop your participation in the study without your consent.

What if you have additional questions?
Should you have any questions prior to or during the study, you may call Ryan L. Rowe at 517-442-5529, or email ryan.l.rowe@wmich.edu. If you have any questions or concerns about this study, you may contact the primary investigator, Dr. Richard Zinser at richard.zinser@wmich.edu. You may also contact the Chair, Human Subjects Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions arise during the course of the study.

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. Do not participate in this study if the stamped date is older than one year.

I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study.

Please Print Your Name

Participant’s signature ___________________ Date ___________________

Signature of Investigator ___________________ Date ___________________
Date: May 26, 2016

To: Richard Zinser, Principal Investigator
    Ryan Rowe, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 16-05-08

This letter will serve as confirmation that your research project titled “High School Seniors’ Educational Experience Influencing the Decision to Pursue a Career in Nursing” has been approved under the expedited category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., you must request a post approval change to enroll subjects beyond the number stated in your application under “Number of subjects you want to complete the study.”) Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: May 25, 2017