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CAREER DECISION-MAKING DIFFICULTIES AMONG HIGH SCHOOL STUDENTS: FROM THE PERCEPTION OF CAREER COUNSELORS AND HIGH SCHOOL PRINCIPALS

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ABSTRACT

Career Decision-Making Difficulties Among High School Students: From the Perception of Career Counselors and High School Principals

By Kellie Williams, EdD

Purpose. The purpose of this comparative research study was to determine the perceptions of career counselors and principals on the types of career decision-making difficulties experienced by high school students and the extent to which a large-scale high school technology-based career development program addresses these difficulties, using the framework of career decision-making difficulties outlined by Gati et al. (1996).

Methodology. This study utilized a causal-comparative research to attempt to identify cause-effect relationships between 122 identified education experts in career counseling, principals, and other participants. The participants belong to the K16 Bridge program to compare the 10 dependent variables, in this case the career decision-making difficulties identified by Gati et al. (1996), among high school students. The data were calculated and analyzed using descriptive statistics (mean, median, mode, and so forth) and the ANOVA test.

Findings. The researcher concluded there was no statistically significant difference between how career counselors and principals perceived their students' ability to make career decisions and that the career education program only somewhat addressed these difficulties.

Conclusions. This study relied on Gati et al.'s (1996) taxonomy of career decision-making difficulties. The participants identified those career decision difficulties to be consistent with the findings from previous research and literature. Showing no significant difference between the groups in this study is meaningful, because it provides reassurance that the gap in their perceptions is minimal. This is important, because if the gap did exist, it would require intervention to get career counselors and principals on the same page.

Recommendations. Further research is advised to consider other participants in other career education programs. Further research is advised to examine the perceptions of career counselors and principals and compare those perceptions against their actual student scores from the CDDQ. In addition to the students' perceptions, it would be valuable to compare the presence of the 10 career decision-making difficulties among students, their parents, career counselors, and principals. It would be interesting to see if the students and parents perceive greater career decision-making difficulties than the counselors and principals.

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DEDICATION

God
My Dissertation Chair and Committee Members
My Husband, Chris Williams
My two Sons, Christopher and Taylor Williams
My Dad, Mom, Siblings, and Grandmother
All my family and friends

CHAPTER I

INTRODUCTION

Research has demonstrated the importance of career planning. In today's technological society, preparation for a young person's future occupation starts a multifaceted series of decisions. This type of preparation for a career starts at a young age and continues into adulthood, involving a complex process of choices. One major developmental task of adolescence is becoming aware of career choice (Erikson, 1968). Yet limited research focuses on the practices used by high schools to enhance career development programs; and fewer studies focus on the key decision makers (KDM) such as teachers, counselors, and principals who implement career programs for students on how they perceive that students make career decisions and choose a path based on those choices. Because career planning starts at a young age and continues through life (Super, 2003), career preparation is a major developmental task for adolescents, which improves personal development, social adjustment, and future well-being (Erikson, 1968; Super 1990). Savickas (1999) summarized career developmental theories as an "awareness of choices to be made and information and planning that bear on these choices" (p. 334). He continued to explain how these choices are main predictors of successful career choices and smooth transitions into postsecondary education and the world of work.

Preparing students, academically, for their career of choice starts in high school by taking appropriate courses to prepare them for their future (Patton, 2009). The career

decision-making process involves developmental stages, which are influenced by personal characteristics such as self-esteem, personal identity, and decision-making styles (Atkins, 1992). Due to the difficulties encountered when making career decisions, Gati, Amir, and Landman (2010) stated, many students are "seeking out guidance from career counselors, and more recently from the Internet" (p. 393).

Web-based career education programs are increasing. Today, many career education programs are delivered through the Internet using classrooms teachers and their academic time (Burns, 2011). One large-scale online career education program identified by the researcher which delivers information from online resources and provides support from classroom teachers and career counselors is the K16 Bridge program. The K16 Bridge program combines the online information and career counseling to help students overcome any decision difficulties. Blending classroom resources and trained career counselors has been proven to be an effective method to educate students (MacDonald, 2006). Because online career education programs are most likely to include assessments for students' self-awareness, career options to match individual needs, and college information, this allows career counselors to spend more one-on-one time with their students discussing the outcomes of these assessments, whereas in the past career counselors had to spend time administering and calculating the results of these career interest surveys.

Online courses have proven to be effective with assessments and providing vast amounts of information. While providing students with vast amounts of career information is good, it can also complicate the decision process. D. Reed, Chok, and

Brozyna (2011) explained that too much information can cause decision-making difficulties. Extensive online databases are increasing their information daily which causes students to become overwhelmed (Burns, 2011).

When students become overwhelmed, consequences occur. According to Gati et al. (2010), career decision-making difficulties have three consequences: (a) not beginning the career decision-making process, (b) halting the process before reaching a decision, or (c) making a nonoptimal decision. It is important to the education community to understand the consequences of students' difficulties when making career decisions. The key decision makers (KDMs) need to recognize the difficulties to avoid the consequences mentioned.

Understanding the cause of the difficulties in career decision making is important, because the cause may affect the severity of the difficulty and the type and length of treatment required (Gati, et al., 2010). Gati et al. hypothesized two types of causes: (a) internal versus external and (b) cognitive versus emotional. Difficulties can arise internally or externally within a student. Internal difficulties stem from the individual (for example, self-efficacy), and external stem from outside forces (for example, parents). Internal difficulties are more severe, because they require psychological intervention and require change within the student. Another difficulty can arise through cognitive learning, involving the collection and processing of information, and emotional behavior where personality influences decision difficulties. Emotional and personality-related difficulties would be more severe, requiring professional counseling. The first step toward guiding students with career decisions is to identify where students have career

decision-making difficulties before overwhelming them with vast amounts of career information. Information on students' career decision-making difficulties can then be used by counselors and principals to ensure that career development programs and services meet students' need and support them in overcoming decision-making difficulties.

Making a career decision is a complex process. This is why students need career guidance to help facilitate the career development progression to help them overcome the difficulties they may encounter during the decision process (Gati, Krausz, & Osipow, 1996). Based on Gati et al.'s (2010) taxonomy, the Career Decision-Making Difficulties Questionnaire was developed to measure the students' level of decision-making difficulties by classifying them into three levels of salient, moderate, or negligible in each of the three difficulty categories and 10 subcategories (Amir, Gati, & Kleiman, 2008). The difficulties are lack of readiness, lack of information, and inconsistent information.

It is important for career counselors and principals to identify the above categories by recognizing these difficulties and addressing them before students embark on a career development program. Identifying the difficulties that prevent students from reaching a decision is an essential step in providing the help they need. The Career Decision-Making Difficulties Questionnaire can be a tool used by KDMs to identify students' decision difficulties.

Background of the Problem

According to the social cognitive approach to career development, the way adolescents develop and exercise personal efficacy in the domain of career choice and

transition into adulthood can play a key role in setting a course for their future (Bandura, 2006; Lent, Hackett, & Brown, 1999). Career development is a process that begins in early childhood and continues throughout life (Super, 1990).

High School Courses Set the Foundation

By the time students reach high school, career development has not been treated as a priority. Students enroll in courses by the recommendations made by their middle school counselors or parent or based on academic performance (Guggenheim et al., 2010). Research has also shown students' parents, peers, teachers, and other environmental influences affect students' career decision making and career self-efficacy (D. Brown & Brooks, 1990; Caprara et al., 2008). Despite this, there is limited information on career education that includes how ninth-grade students decide on a career path.

Too often, students who enter ninth grade are not aware which courses are necessary for their future career (Lee, 1993). Students' lack of knowledge on career decisions coursework continues into college. According to Patton and McMahon (2006), high school courses are the foundation for a student's journey into postsecondary education and work. Students need to take appropriate courses to meet high school graduation requirements, and they need to take appropriate courses to apply to college.

Common Core

Common Core State Standards Initiative ([CCSS], 2012) motto is "Preparing America's Students for College & Careers." Building on the foundation from state

standards, the CCSS aim is to provide students with a high-quality education. According to American College Testing (ACT) (2010a), it is a priority to increase college and career readiness for high school graduates. The CCSS Initiative starts addressing career education in the second grade and builds throughout the grades (CCSS, 2012).

In the CCSS English language arts (ELA) and literacy are standards to prepare students with a solid foundation of vocabulary, reading, and how to use language for college and the workplace. Mathematics CCSS prepares students for basic job computations. Because CCSS is still being initiated across the nation, there are no data to show these improvements have happened. The results of the ACT (2010b) study demonstrated "far too many of today's students will likely graduate from high school not ready for college-level work or career training programs without needing some type of remediation in English language arts and mathematics" (p. 12).

Preparing for Postsecondary Education

College tuition costs are increasing and classes are impacted, making enrollment difficult (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). Research indicates many students face considerable challenges in selecting college majors (U.S. Department of Education, 2010), thus lacking a plan and knowledge of their interests before entering a costly institution. Another issue is the quality of high school preparation not keeping pace with interest in attending college (Kuh et al., 2006). Not only are students under a lot of pressure to choose a college to guide them into a satisfying career, but they will also be entering the workforce. Ireh (1999) stated, "For most people, particularly the youth, the period during and beyond high school is marked by important career decision-

making that are, like most in life, not irrevocable" (para. 2). Based on the needs described, high school students face great challenges in choosing academic courses to prepare them to enter a satisfying college to pursue a fulfilling occupation.

According to college career literature, college freshmen are not prepared to choose a career path, and therefore many college freshmen have not declared a major (Walsh & Osipow, 1988; University of Missouri—St. Louis Office of Admissions, 2006). Additionally, according to Tinto and Goodsell (1993), the majority of new students entering higher education leave their initial college of choice without completing a degree. Although choosing an undecided major can be viewed as an advantage for students to spend time exploring their interests and develop skills necessary for their career, this can be costly and can waste college students' time. One advantage of a high school career education program is having students make decisions on their career plan before entering college. Students from the class of 2010 [national survey] say that based on what they knew one year after high school, they wish they had chosen different courses in high school to better prepare them for careers and colleges of their choice (Hart Research Associates, 2011).

College and Career Ready

Concern about college and career readiness has been an issue for both business and colleges (Schultz, 2011). The Association for Career and Technical Education (2010) defined career readiness as the level of preparation a high school graduate needs in order to proceed to the next step in a chosen career. In February 2010, President Obama expressed the need for education standards to prepare students for college and

careers. The President shared concerns that U.S. students were not performing as well as their peers internationally in math and science. In addition, the college readiness measures such as the ACT college test indicated just over 50% of high school juniors and seniors were prepared for college-level reading and math (ACT, 2010a). Among the 2010 ACT-tested graduates, a combined total of 43% met either none (28%) or only four (15%) of the ACT college readiness benchmarks (ACT, 2010a).

Four out of every 10 new college students, including half of those at 2-year institutions, enroll in remedial courses; many employers comment on the inadequate preparation of high school graduates (U.S. Department of Education, 2010). Greene (2000) estimated that leaving high school without being prepared for postsecondary training or entry into the workforce costs the nation more than $16 billion each year in remediation, lost productivity, and increased demands on the criminal justice and welfare system. It is imperative that we raise the expectations for our students, schools, and ourselves (Farris, 2012).

Students Not Prepared for the World of Work

As the world of work becomes more complex and technologically dynamic, career decisions made by students are becoming more complicated (Maduakalom, 1983). As the world changes and society demands people to be prepared for work, education needs to adapt and change to meet those demands. According to the national survey of high school graduates from 2010, "69% of them say having a college degree will help them get the kind of job or career they are looking for" (Hart Research Associates, 2011,

p. 4). Ninety percent of these high school graduates say one of the main goals of high school is to prepare them for the workplace. Only half of these graduates feel their high school met the need (Hart Research Associates, 2011). According to the U.S. Department of Labor (1991), more than half of the students who left high school did not have the knowledge or foundation to make decisions to prepare them to hold a good job (Bailey, Bruce, Rotter, & Sampson, 1992; Maduakalom, 1983; Williamson, 2006).

Delivery of Career Education

The delivery of career education is no longer the sole responsibility of the guidance counselors. The entire school is involved; in particular, the classroom teacher plays a major role introducing career choices (Firling, 1989). Literature supports that career education is vital for student success, but it has been difficult for many schools to embrace the entire program due to declining budgets, resources, and time.

Multiple theories have been the foundation for career development programs to meet the needs of students today (Ireh, 1999). Across the nation, theory-based career development programs have been implemented and practiced. Meanwhile, research demonstrates high school students do not have adequate self-knowledge to make informed decisions for future careers (Jepsen, Dustin, Miars, & the University of Iowa, 1981). Students' indecisiveness, from the lack of information and guidance, hinders them in making informed choices about their postsecondary goals and future careers (Finlayson, 2009). Studying the way career counselors process information about their students' decision-making process is important, as it affects the way counselors give guidance. It is valuable to increase the expertise in career counseling.

Counselors' Perception

According to Gati and Blumberg (1991), career counselors' perceptions have shown to be informative in the interpretation of career assessments and career decision-making difficulties. Students need adequate knowledge when making career decisions that will affect them throughout their lives, and this study will provide knowledge on how counselors can improve their practice. Because career education programs are shifting into the classroom, it is easy for classroom teachers to use online career programs; thus, students are not benefiting from expert counseling advice.

Role of Principles and Counselors

School principals and school counselors share a common goal to prepare students for college and the workplace. Although their individual roles and responsibilities are very different, both principals and counselors face difficulties and challenges in their efforts to improve student success in regard to career goal setting. School principals play a key role in school counselors' hiring, dismissal, and counseling department structure; the principals' perceptions of school counselors' roles and functions may influence their decisions. Recent budget cuts in education are adversely affecting schools across the nation, such as in California, and these budget cuts have reported counseling layoffs.

School principals usually select and hire school counselors and supervise and establish school counselor roles and functions. In order to make appropriate and informed decisions, principals need to be conscious of the roles and functions outlined by the American School Counseling Association (ASCA) organization. Similarly, school counselors need to be aware of their administrators' knowledge and perception of

counselors. Failing to understand their administrators' perceptions could cause hardships among the counseling departments and their jobs. Thus, school counselors need to advocate and inform principals about the importance of their roles for student success.

According to literature, principals have suggested that counselors should serve students, school administration, and the community. Despite the ASCA attempts to clarify the school counselor's role, considerable debate remains on the importance of the counselor's responsibilities. Although literature supports an overall positive perception of the school counselor from their principal, they still do not have a clearly defined view of the school counselor's role and therefore make schoolwide reform decisions based on their perspective. The new Common Core State Initiative goal is to prepare students for college and the workplace, and administrators need to recognize the importance of career counselors' roles in implementing the new common core goals.

Computer-Aided Instruction (CAI) in Career Guidance

Literature also suggests online career development programs, which include student self-awareness, knowledge in various career fields, and decision-making strategies, aid students' ability to make better decisions for their future (Austin & Cilliers, 2011; Bailey et al., 1992; D. Brown, 2003; D. Brown & Brooks, 1990; Daggett, 2005; Di Fabio & Kenny, 2011; Feller, 2004; Ireh, 1999; Kuh et al., 2006; Lee, 1993; Peng & Herr, 1999; Pope, 2000; Williamson, 2006). However, based on the students' constructs and knowledge at the time the online assessment is administered, computers do not and cannot interpret interest inventories alone because computers interpret results through

algorithms (Gati & Blumberg, 1991); thus, the results can vary. In a good career guidance program, students are guided on how to make informed choices and decisions using online assessments and support from a trained counselor (Kuijpers, Meijers, & Gundy, 2011). According to Kuijpers et al., high school students have low cognitive ability to make rational career choices; along with online assessments, schools should provide students with reliable information and support from guidance counselors to aid them in their decision-making process. When this support is combined, students are able to make rational choices regarding their future.

Decline of Career Education Programs

Schools have been declining, if not eliminating, career education programs (Bailey et al., 1992, D. Brown & Brooks, 1990), due to declining budgets and education reform. Public schools focus on standards-based curriculum to increase rigor and accountability, thus decreasing, if not eliminating, courses with career education (Gray, 2002; National Center for Education Statistics, 2008). Williamson (2006) claimed, "Ninth grade students are in a particularly precarious situation in regard to career decisions, because school systems require them to make specific educational choices at the beginning of their high school career" (p. 5); and they are not prepared to make these choices.

Freshmen are required to choose high school courses to prepare them for their future careers and college choices. Some schools accomplish this task by having students create a 4-year plan to include a math and science track and choose elective courses to meet their individual satisfaction (D. Brown, 2003; Lee, 1993, Peng & Herr, 1999;

Williamson, 2006). In addition, they are taking graduation-required courses which vary from district to district. Students are choosing courses even when research demonstrates high school students lack the skills necessary to make those decisions. Given these relationships among identity formation, cognitive development, and education decision making, high schools need to continue to meet the students' needs by designing career programs that not only provide specific information, but also teach exploration and decision-making skills and promote self-understanding.

Need for Career Education

Despite many accounts reported and documented on how career education is beneficial to high school students, mounting evidence proves high school students are not prepared to effectively deal with career decisions (Williamson, 2006). Mathiasen (1998) outlined the three most important career development needs. First, students need help with understanding the career decision-making process. Second, they need academic guidance. Finally, they need to know how and where to go when they need help with personal and emotional problems. Many high schools are not able to provide this individualized attention to students. Career courses have a long history of being effective in dispersing career planning information; however, many of these courses merely offer basic career information without addressing decision-making difficulties. In order for career courses to be effective, they must be developed to meet the specific needs of the students (C. Reed, Lenz, Reardon, & Leierer, 2000). Understanding the role of career decision-making difficulties in the selection, design, and evaluation of career

development programs has the potential to aid students in their preparation for their careers and later life, as well as to strengthen counselor education and support.

K16 Bridge and EUREKA Career Education

The researcher identified the K16 Bridge program, because it contains a wealth of career information and a strong partnership between the teacher, counselor, and student, which supports Mathiasen's (1998) career development needs. The K16 Bridge program is actively used in California and Texas. Between the two states, the program connects over six elementary schools, 20 middle schools, and 67 high schools with nine community colleges. In the fall of 2013, there were over 50,000 students expected to participate in the K16 Bridge program.

The K16 Bridge is a portal for students to access a career education program called EUREKA: The California Career Information System (Lewis Center for Educational Research, 2009). EUREKA (2012) helps students identify their personal identity, transferable skills, and preferred job characteristics; identify relationships between careers and academic subjects; explore career options; decide on a field of study or major; explore training options to identify the right postsecondary education needed; and create a plan to fulfill their future careers.

EUREKA lessons emulate the career maturity inventory model, first to gain self-understanding through the *True Colors* assessment and recognition of soft-skills through the *MicroSkills* assessment. Second, the students obtain knowledge about the world of work, realities of job environments and career clusters, through the *Occ-U-Sort* assessment. Third, the student uses their unique information to guide them to develop a

career plan with the support of a career counselor provided by the K16 Bridge program. However, before a career development process can begin, where students start making decisions for their future, counselors, teachers, and principals need to identify the area where students have career decision difficulties.

Although several studies confirm the effectiveness of career education, many of these programs merely offer basic career information and do not address the difficult decisions students face when creating a career path. Johnson & Smouse (1993) suggested that in order for career courses to be effective, educators must meet the specific needs of the individual students' decision difficulties. In order to help students with their decision difficulties, it is necessary for educators to identify where students have career decision-making difficulties upon beginning a career education program (Woodman, 2008). According to Gati et al. (1996), identifying the unique difficulties that prevent individuals from reaching a decision is an essential step in providing them with the help they need to develop a career plan.

Career Decision-Making Theory

Career decision-making difficulties theory was designed to expand on Bandura's self-efficacy theory to identify why students suffer from career indecision (K. M. Taylor & Betz, 1983). More specifically, career decision theory is based on applying decision theory to career decision making (Gati, 1986; Gati & Tal, 2008). Decision theory is also based on the following: once a student has identified a career from their results on assessments of interests, abilities, and values, then they can start making decisions by

developing a plan to include the education needed to reach their job of choice (Perdue, Reardon, & Peterson, 2007).

Over the years, career counselors have recognized the importance of the steps in career decision theory; however, less emphasis has been given to distinguish among different facets of the decision-making difficulties. Bordin and Kopplin (1973) attributed career decision-making difficulties to internal and unconscious sources instead of visible symptoms. Proponents of the developmental approach rely on the idea specifically between the "salience of an individual's career decision-making difficulties and the severity of these difficulties from the perception of counselors" (Gati et al., 2010, p. 393).

Severity of career decision-making difficulties is often used to distinguish between indecision and indecisiveness in career counseling research. In this study, severity is defined as "the scope of the potential negative consequences of each difficulty category on the client's career decision-making process or the required career counseling" (Gati et al., 2010, p. 394). The goal of this study is to understand the severity in career decision making among high school students, by revealing and analyzing career counselors' perceptions about the severity, causes, and implications of various career decision-making difficulties among their students (Gati et al., 2010).

In analyzing the severity of career decision-making difficulties, the researcher relied on the taxonomy of difficulties proposed by Gati et al. (1996), which is based on applying decision theory to career decision making. According to K. M. Taylor and Betz (1983), this taxonomy theory designed a questionnaire to "measure self-efficacy expectations with regard to 50 tasks or behaviors required in career decision making and

the examination of the relationships of career decision-making self-efficacy to several components of vocational indecision" (para 1). This taxonomy provides a systematic theoretical framework for characterizing the various challenges individuals face when making career decisions (Gati et al., 2010).

Based on this taxonomy, the Career Decision-Making Difficulties Questionnaire was developed as a means of locating the foci of a student's career decision-making difficulties. The questionnaire identified whether the student had salient, moderate, or negligible difficulties in each category (Gati et al., 1996). This study specifically focused on educators (counselors and principals) and how they perceived their students' difficulties in career decision making, how they interpreted the assessments, and how they chose the required intervention for students. Studying the way educators process information about students is important, as it affects the education process. The goal of this study was to identify the severity of career decision difficulties among high school students and suggested sequences of interventions aimed at reducing the difficulty as identified by the perceptions of counselors and principals.

Statement of the Problem

Based upon the needs described, students face great challenges in choosing high school courses to prepare them for postsecondary education and the world of work. According to the research, high school students do not have the cognitive or emotional abilities to make these choices. Therefore, high school counselors and principals need to identify which area of career indecisiveness has the highest severity and design a career

education program that will help their individual students understand the barriers that cause career decision-making difficulties.

Purpose of the Study

The purpose of this comparative research study was to determine the perceptions of career counselors and principals on the types of career decision-making difficulties experienced by high school students and the extent to which a large-scale high school technology-based career development program addresses these difficulties, using the framework of career decision-making difficulties outlined by Gati et al. (1996). In particular, this study examined the perceptions of school counselors and principal on the severity of high school students' career decision-making process.

Research Questions

1. To what degree do career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by Gati et al.'s (1996) taxonomy of difficulties in career decision making?
2. To what degree do career counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the K16 Bridge program using the EUREKA career development program?
3. Is there a significant difference in the degree career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by the Gati et al. (1996) taxonomy of difficulties in career decision making?

4. Is there a significant difference in the degree the counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the EUREKA career development program?

Significance of the Research Problem

The quality of career decisions made during the transitions from K-12 education into postsecondary education and the world-of-work is significant for both the student and society. Deciding on a career has become more complicated since Frank Parsons (1909) first introduced his framework to help individuals select a career. The growing rate of change in the world of work increased the number of career options individuals can choose. Therefore, identifying the unique difficulties that prevent individuals from reaching a decision is an essential step in providing them with the help they need (Gati et al., 1996; Osipow & Fitzgerald, 1996).

In addition, the limited research on career decision-making difficulties does not explore the perceptions of high school counselors and principals. Despite the rapid growth in the K16 Bridge program using EUREKA career development among K-12 schools and community colleges, little research has been conducted on the effectiveness of the career decision-making tools. Much research has examined the importance of career education among college students, with limited research among high school career programs. Many studies focused on the students' needs and characteristics, and few studies focused on the counselors and principals themselves and how they perceive the students' needs and choose the required intervention. Researching how high school counselors and principals process information about students is important, as it affects the

education process and the how the students benefit from their knowledge. Analyzing the knowledge of career counselors and principals is important, because it can be used for designing and improving programs provided to young students.

Definitions of Terms

Career choice preparedness. Refers to the readiness to take advantage of opportunities and the readiness to deal with barriers and setbacks in the domain of career choice (Osipow & Fitzgerald, 1996).

Career choices. "Influenced by a number of direct and indirect variables other than self-efficacy, expectations of outcomes, and goals. Direct influences on career choice and development include discrimination, economic variables that influence supply and demand, and the culture of the decisions maker. Indirect influences include chance happenings" (D. Brown, 2003, p. 46).

Career decision-making process. A long-term process that requires individuals to have (a) adequate self-knowledge, (b) adequate information about the work world, (c) ability to gather information, and (d) experience that leads to the right direction in regard to decisions and choices (D. Brown, 2003).

Career development. Career development can be defined as a "process of change over time" (Skorikov, 2009, p. 114). It is also defined as "lifelong processes involving psychological, sociological, economic, and cultural factors that influence individual's selection of, adjustment to, and advancement in the occupations that collectively make up their careers" (D. Brown, 2003, p. 20).

Career education. A systematic attempt to influence the career development of students and adults through various types of educational strategies, including providing occupational information, infusing career-related concepts into the academic curriculum, taking field trips to businesses and industries, having guest speakers who represent various occupations talk about their jobs, offering classes devoted to the study of careers, establishing career internships and apprenticeships, and setting up laboratories that simulate career experiences (D. Brown, 2003).

Career exploration. "Attempts to measure the quality of exploratory attitudes by asking the student to rate the quality of various possible sources of occupational information" (Walsh & Osipow, 1988, p. 93).

Career indecision. The problems individuals may have in making career decisions (D. Brown, 2003).

Career plan. Rottinghaus, Day, and Borgen (as cited in Creed, Fallon & Hood, 2009) defined career plan as "a tendency affecting the way an individual views his or her capacity to plan and adjust to changing career plans. . . especially in the face of unforeseen events" (p. 220).

Decision making. "Measures the ability to apply knowledge and insight to the problems of career planning and decision making" (Walsh & Osipow, 1988, p. 93).

Environment. "Influences that may lie outside the control of anyone but that bear on the individual through the environment in which the individual exists" (D. Brown, 2003, p. 42).

EUREKA. A public, nonprofit computerized career information organization. It has been ranked number 1 by California educators and California community colleges (EUREKA, 2012).

Expert counselor. Career counselors' expertise can be elicited from them and translated into well-defined rules (for example, algorithms for interpreting vocational interest inventory results (Gati, 1987; Gati & Blumberg, 1991), appraising the crystallization of clients' career preferences (Gati & Ram, 2000), and assessing the salience of clients' career decision-making difficulties (Amir et al., 2008).

Indecision. "Wavering between two or more possible courses of action" (Indecision, 2013).

Individualism. "Self-centered feeling or conduct as a principle; a mode of life in which the individual pursues his own ends or follows out his own ideas; free and independent individual action or thought; egoism" (Individualism, 2013).

Interests. "Interests are likes or preferences, or state somewhat differently, things that people enjoy" (D. Brown, 2003, p. 67).

K16 Bridge program. Informs and influences postsecondary education to all students from an early age and is based on their specific personalities, academic programs, financial aid, and other aspects of postsecondary education (Lewis Center for Educational Research, 2009).

Personalities. "The sum total of an individual's beliefs, perceptions, emotions, and attitudes and may be extended to include the behavior of the personality as well (D. Brown, 2003, p. 68).

Psychometrics. "Test designed to provide a quantitative analysis of a person's mental capacities or personality traits, typically as shown by responses to a standard series of questions or statements. . . . The field is primarily concerned with the construction and validation of measurement instruments such as questionnaires, tests, and personality assessments" (Psychometrics, 2011).

Salient. "Moving by leaps or springs; jetting upward" (Salient, 2013).

Self-efficacy. "The individual's judgment regarding ability to perform a task at a certain level (Bandura, 1977, 1986)" (D. Brown, 2003, p. 133).

Social self. "The social self is made up of those aspects of self-perceptions regarding intelligence, social status, and gender, whereas the psychological self is made up of variables such as values and personality variables" (D. Brown, 2003, p. 40).

Values/behaviors. "Values vary from culture to culture. Brown's Value Based Theory consists of these variables: family, group influence, discrimination, gender, aptitudes, and environment. Values are beliefs that are experienced by the individual as standards regarding how he or she should function" (D. Brown, 2003, p. 54). "Needs that guide our behavior and serve as standards against which we judge our behavior and the behavior of others" (p. 69).

Vocational behavior. "Patterns of enduring traits, occupational interests, skills, and abilities; or developmental stages unfolding over a lifespan, yet with an emphasis on adolescence and early adulthood; or crucial decisions at transitional moments in specific domains such as education and work" (McIlveen, 2009, p. 64).

Work. "Activity in which one exerts strength or faculties to do or perform something" (Work, 2013).

World of work information. "Assess knowledge of the tasks of Super's Exploratory and Early Establishment stages and knowledge of specific occupations" (Walsh & Osipow, 1988, p. 93).

Delimitation of the Study

Roberts (2010) defined delimitations as characteristics selected by the researcher to define the boundaries of the study. This study focused on career counselors and high school principals who participate in the K16 Bridge program. The study was conducted from December 2012 through January 2013.

Many career education programs exist in the educational arena. EUREKA was the only career education program considered for this study. This study was limited to career counselors and principals who are participants of the K16 Bridge career development program and their perceptions of student career decision-making difficulties. A bias may exist among participants responding to the questions.

The study may have the following delimitations:

1. This study utilized counselors and principals who are participating in the K16 Bridge program.
2. This study utilized the identified 10 decision difficulties by Gati et al. (1996). Caution is advised in regard to difficulties when making a decision beyond the scope of the EUREKA career development program.

3. Counselors and principals who had participated in other career development education programs, other than the K16 Bridge program, were excluded.
4. This study did not focus on the validity of the career development program or how the program is structured. This study focused on the perceptions of career counselors and principals on students' career decision-making difficulties.

Summary

In spite of the challenges career development programs face, they have much to contribute to today's increase in college enrollments and competitive U.S. job market and emerging global economy (Lee, 1993). Providing career education programs as part of a high school curriculum is a way to help students learn about the career decision-making process (Moody, Kruse, Nagel, & Conlon, 2008). The problem, however, is that schools are having a difficult time finding a place to include a career education program. The counseling departments do not have the manpower to fully facilitate an entire career education program. In addition, teachers are resistant to implementing new activities into their classrooms that significantly increase their workloads (Evans & Burck, 1992). Career education programs are abundant and are available online; it is likely teachers of all disciplines will be able to implement a career education program with relative ease (Williamson, 2006). However, it is difficult for career counselors to find time to meet with each student to discuss career decision difficulties. If these difficulties can be identified, then this information can add value to career development programs. Ultimately, the entire school will benefit from students who have focused on a career

path, because students will more likely see the value in passing a class and enroll in courses needed for their future (Williamson, 2006).

According to all the theories researched, many factors play a role in career decisions. Each theory discussed incorporated decision making as an important aspect of career development. The key difference in the application of constructivism to traditional career education is the nature of learning, teaching, and assessment (Patton, 2009). Recognizing change in career development also places change on the role of schools and on the types of programs they choose to use.

Organization of Study

This study contains five chapters. Chapter I included an introduction, a statement of the problem, the purpose of the study, the research questions, delimitations of the study, the significance of the study, and the definitions of the terms used in the study. Chapter II includes an introduction and review of the literature, which supports the purpose and significance of the study. Chapter III outlines the methodology of the study and includes a description of research and study design, population and sample, instrumentation, procedures for data collection and analysis, and limitations of the study. Chapter IV presents an analysis and discussion of the data obtained in the study. Chapter V provides a summary of the key findings, states conclusions, and offers recommendations for future research and implications for action.

CHAPTER II

LITERATURE REVIEW

This chapter explores the literature of career education and theorists who have been part of the evolution of career education. It was once thought informing people about career descriptions was enough for them to make sound career choices based on what they believed to be their interests. It was also thought that career counseling was a one-time event. As information on career decision-making grew, researchers began to realize that the process was both complex and different for each individual (Coco, 2001). Because of the abundance of information available, students have a difficult time deciding what path they should follow for their optimal career choice. Several developmental theories have been reviewed to explore various interventions to address career indecision among high school students (Gati & Asher, 2001). This study explored career decision-making difficulties as determined by Gati et al.'s (1996) taxonomy of difficulties in career decision making from the perception of career counselors and principals.

Background

The roots of career guidance and career development theory started in the 19th and early 20th centuries. Much of this theory grew out of the logical positivist position, and practice was expert driven, meaning a trained counselor or psychologist administered

assessments, gathered information, and guided career decisions through a linear process (Patton, 2009). During the late 1800s, the rise of industrialism changed both living environments and work environments. In the late 1900s, technology changed the way people gathered information. Technology introduced choice overload (D. Reed et al., 2011). Choice overload is defined as too many options that complicate the decision process. Today, there is an increase in career opportunities available, such as increased urbanization, larger resources on hand, availability of technology, and a global workplace. The increase in opportunities increases career decision-making difficulties.

Career Development: A Historical Perspective

As career education has evolved over the past 100 years, each theory has added value to previous theories (Crites, 1987). It is difficult to say why some theories become influential whereas others do not. The purpose of a high school career education program is to prepare students for postsecondary education or the world of work. In particular, high school career education programs include information for students to create a plan so they are prepared for postsecondary education. In this plan, students need to include their high school graduation requirements (Lee, 1983). This can be a challenging factor for many students, because schools are limited on available course offerings and have limited time in the day to offer a variety of courses (Ireh, 1999; Lee, 1983) needed to fulfill their career goals.

To improve upon what already exists, it can be useful to gain an understanding of the past theories. The roots of career guidance can be traced back to Frank Parsons who

started the Vocation Bureau in Boston in 1908. Parsons identified the emergence of America as an industrial nation in need to match people interest with specific career requirements to increase job satisfaction and profits for businesses; previously, people worked on their family farms or anywhere they could find jobs, such as the railroad, whether or not they had a passion for their work. Although Parson's work was not considered to be a theory, it was the foundation other theories built upon (D. Brown, 2003). His framework was the first conceptual model for a career decision-making process and guide for career counselors (D. Brown & Brooks, 1990).

Parson's (1909) book, *Choosing a Vocation*, stated, "No person may decide for another what occupation he should choose, but it is possible to help him so to approach the problem that he shall come to wise conclusions for himself" (p. 4). Parson's major contribution was the "three-step" schema. The steps included the following:

> (1) a clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitations, and their causes; (2) a knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; (3) true reasoning on the relations of these two groups of facts. (Part II, para. 1)

It was Parson's idea's that set the foundation for the development of assessment instruments to measure individual differences and align them with the an occupation (Coco, 2001). In other words, his model for a career decision-making process and guide for career counselors helped develop techniques for individuals to determine their resources, abilities, and interests and then match those traits to careers. Although Parson's schema was not considered a theory, it was the first model and foundation for other theorists to create a framework to help individuals select a career.

After WWI (1914-1918), the need to test large groups increased as more people needed classification and training for the armed services (Camp, 2000). After World War II (1939-1945), the GI Bill produced a significant increase in enrollment in colleges and universities and focused the need for educational planning. The American College Testing (ACT) program was designed to predict success in college and was a means for helping individuals select academic majors or careers. Theories of career development emerging in the 1950s contributed to career guidance by providing insights into the developmental stages and tasks associated with transitions between these developmental stages (Ginzberg, Ginsberg, Axelrad, & Herman, 1951; Pope, 2000; Super, 1990).

Dysinger (1950) viewed vocational choice as a series of decisions. He classified career indecision into the following two types: (a) the youth who postpone or consider several alternatives and (b) the youth whose goal is the avoidance of a decision. He also acknowledged that making a decision opens the door to failures and disappointments. Consequently, he considered indecision as a safe haven from making a commitment to a specific plan (Crites, 1965).

Ginzberg et al. (1951) were the first theorists to offer a development approach to career development. They concluded that career development occurs in three stages: fantasy, tentative, and realistic. These stages end at about age 18 when a decision is made for postsecondary education or the world of work. Career development during the high school years involves the final two stages, which are characterized by broadening of occupational perspectives, increased awareness of the range of factors involved in career planning, and the development of a clearer and more accurate self-concept (Ginzberg et

al., 1951). When adolescents are around the age of 18, they become increasingly aware of their own values. They realize the importance of contributing to society; they are concerned about their future lifestyles; and they are aware of many occupational options. These realizations correspond to the end of a student's high school years, and reality begins to factor in the student's decision process. According to Ginzberg et al., this is when students begin to understand career decisions, and the real planning starts.

Super (2003) was one theorist who saw career choice as occurring in a series of stages. He saw occupational choice as a developmental process. It is not a single decision but a series of decisions made over a period of years starting at a young age. Super's work suggested that choices must be considered with reference to the past and the future (Repetto, 2001). His career model contained many decision points throughout an individual's life span. Vocational development was seen as a dynamic process of emotional, intellectual, and social skill development (Super, 2003).

Super's (2003) life-span-life-space theory and Gottfredson's theory address these factors in depth. Super's theory describes how people are diverse and their views should not be grouped with anyone else's. People differ in their abilities and personalities, needs, values, interests, traits, and self-concepts. Each career requires a characteristic pattern of abilities, which match the personality traits of each individual. As people live and work, their personalities change over time; and their need for change should adjust (D. Brown, 2003). Also in the 1950s, many career theorists noted Holland's work in the area of career choice theory.

Like Super, John Holland's contributions to career counseling, from the 1970s, had become the basis for a vast amount of research. Holland's approach emphasized the importance of behavior style and personality type in the career decision process. He speculated that there were six types of personalities and environments: realistic, investigative, artistic, social, enterprising, and conventional, also known as RIASEC (Pike, 2006). Each letter or code stands for each of the six personalities and environments. According to Holland (as cited in Patrick, Eliason, & Thompson, 2005), "Occupational achievement, stability, and satisfaction depend on congruence between one's personality and job environment" (p. 44), and individuals use stereotypes of themselves and occupations to make career decisions. He believed that if individuals have an accurate perception of how they view themselves and various occupations, they are in a position to make appropriate career choices. There are many personality tests given based on Holland's theory, even today (Patrick et al. (2005). For example, assessments using the Holland theory today are the Holland Code (RIASEC) test (University of Illinois), California Career Zone (California Department of Education), Holland's Code Quiz (Rogue Community College), and True Colors (K16 Bridge). Holland's theory, as it applies to career decision making, appears to be providing increasing evidence that many forms of self-knowledge (for example, known interests and competencies, favored activities, and self-estimates of ability) may comprise a person's self-efficacy beliefs (Feehan & Johnston, 1999).

Self-efficacy theory pertains to beliefs about one's performance possibilities. For adolescents to perform successfully in a career education program and take it seriously,

they need to have a positive attitude and high self-efficacy (Bandura, 2006; Lent, Hackett, & Brown, 1999). Self-efficacy aids in the prediction of goal setting and implementation of a career plan among high school students (K. M. Taylor & Betz, 1983). Since self-efficacy is related to achievement beliefs, Lent et al. (1987) found that self-efficacy was the most useful variable in predicting grades and persistence for course selection. Lent, Lopez, and Bieschke (1991) further found that outcome expectations and self-efficacy were effective in predicting career interests and that self-efficacy is significantly related to academic performance and persistence.

Krumboltz's social and socioeconomic theories describe a social learning approach to career selection based on the behavioral theory of Bandura (self-efficacy), and environmental factors such as status, dual labor markets, race, gender, and career (Patton & McMahon, 1999). Genetic endowment and special abilities influence the individual's choices for careers. The environment and social events may cause an individual to consider a career. According to John Krumboltz (as cited in Patton & McMahon, 1999), "Unplanned events affect everyone's career" (pp. 59-60); examples of these environmental influences are living conditions, training opportunities, politics, or physical events such as earthquakes or tornadoes (D. Brown, 2003). The shifts in the economy and high unemployment rates are unplanned events.

As Cabral and Salomone (as cited in Osipow & Fitzgerald, 1996) pointed out, the events themselves are not as important as their sequence and timing or the individual's response to them. Individuals with a well-developed self-concept may be most able to digest and use chance events to their advantage. Unfortunately, it seems that individuals

make negative choices in chance events due to drastic life transitions, such as a job layoff. Individuals have trouble dealing positively with negative events (for example, job layoff) because of their heightened sense of personal vulnerability (Bandura, 1986; Super, 2003).

Zimmerman and Schunk (2003) noted Bandura's self-efficacy theory stated students will not engage in activities they feel would lead them to unsuccessful results. Students need success. Students will easily give up on tasks similar to those they have previously failed. Self-efficacy brings together both cognitive and behavioral thoughts. Bandura and Fass (1977) observed that people are more likely to participate in activities (careers) when they know the outcome will be positive and avoid situations that result in failures. Research demonstrates self-efficacy levels can change when students gain new insights and knowledge about their situations. According to Bandura and Fass, self-efficacy can increase through self-experience, observing others achieve, verbal persuasion, and emotional arousal. Bandura and Fass's observations could be used as the basis for career development counseling techniques designed to aid a student's efficacy expectations (Strauser, 1995).

Unlike other learning models based on Bandura's (1986) work and Holland's personality tests, Peterson and Associates developed a new learning theory focusing on information processing, called Career Interest Profiler (CIP) (D. Brown, 2003). This theory is based on two factors: knowing about oneself (constructivism) and knowing about one's options. However, according to D. Reed et al. (2011), there are an abundance of options available with technology, which only confuses students and makes

career decisions more difficult, especially among the youth. When it comes time for individuals to choose a career, they rely on assessment results about themselves and gathered information regarding their career of choice (D. Brown, 2003). The proliferation of information and communication technologies (ICTs) is one of the major characteristics of the 21st century (Gati & Asulin-Peretz, 2011).

In the 21st century, career development has evolved to include online programs. As education reforms and high school counseling duties evolve, no longer will a single decision between a trained guidance counselor and student be enough for life-long career choices (National Career Development Association, 2000).

Career Decision-Making Difficulty

The majority of people will have to make a career decision and have career problems to solve (J. E. Holland & Holland, 1977). Career decision-making difficulty is becoming an important construct in understanding the foundation to start a career education program (Gati et al., 2010) and has been linked to career indecision (Osipow, Carney, & Barak, 1976). Gati and Asher (2001) defined career decision making as "the process people go through when they search for viable career alternatives, compare them, and then chose one" (p. 147). Often, the first step in choosing a career begins in college; however, this study explores the importance of career decision-making difficulties that affect high school students when starting their career journey.

Typically, students choose to attend college for a variety of reasons, but many attend college to prepare them for a successful career (Broekemier, 2002). In order for students to choose a career, they must acquire knowledge of themselves, such as their

strengths, interests, and work values through assessments and assignments in school (Williamson, 2006). Then, students align their individual attributes to careers they enjoy. After choosing a career, students choose a postsecondary education to prepare them for that career. In order for students to attend their postsecondary education of choice, they need to be prepared by taking and passing appropriate high school courses (Patton, 2009). The process is arduous and complicated, and students need guidance from a trained counselor (Gati et al., 2010).

Indecisive High School Students

Many students experience high levels of generalized anxiety that make overall decisions very difficult (Gordon, 1998). Through career education programs, students also learn about possible career options and develop or enhance their employability skills (Wakefield, 1993). Accumulating enormous amounts of information and trying to make sense of it is scary, considering this information and decisions are irrevocable (Ireh, 1999). Because of this fear, students are often unable to make decisions or are unwilling to commit to choices (Bandura, 2006). Multon, Heppner, and Lapan (1995) described these students as lacking "strong motivation to become more clear about their values and goals because of a general discomfort about making a decision and tendency to avoid learning more about occupations" (p. 87). A chronically indecisive student may have psychological issues that need to be resolved. This is why, today, it is necessary to include a trained counselor in an online or classroom career development process (Gati et al., 2010). According to Feller (2003), career development programs can play a key role in preparing students to transition from high school into postsecondary education.

Career Exploration

Today's high school graduates must possess skills and knowledge to be prepared for the workforce and college (Baker, Clay, & Gratama, 2005; Wakefield, 1993). Career development is vitally important for today's youth who are motivated more than ever but directionless (Schneider & Stevenson, 1999). Many high school students are unable to understand their interests and abilities, identify different career opportunities, possess necessary skills to explore opportunities, and recognize current career vocabulary (Williamson, 2006). Taking appropriate courses in high school prepares students academically and emotionally for their career of choice (Patton, 2009). In addition, most high school educators would agree their purpose is to prepare students for postsecondary education and the world of work (A. C. Brown, 2009; Savickas, 1999). According to Savickas (1999) and Williamson (2006), a solid career guidance program takes students on a journey through various degrees of career maturity. This maturity process gives students the ability to make better and more informed career decisions. When a student is indecisive, both the student's further job satisfaction and postsecondary education choices suffer.

Indecisive College Students

According to the National Center for Education Statistics, between 30% and 40% of incoming college freshman are unsure of a major, and an estimated 75-80% of students change their majors (University of Missouri—St. Louis Office of Admissions, 2006; Walsh & Osipow, 1988). Undecided and change of majors result in a first-year (college)

dropout rate of more than 45% at 4-year institutions and approximately 35% at 2-year institutions (ACT, 2011).

Most students are not acquiring the information they need to go to college in time for that information to be effective; therefore, according to Metropolitan Life Insurance Company (2011), "Too many students in the United States and many other nations are not gaining the knowledge and skills needed for future success" (p. 3). Even though career counselors and teachers, with college experience, are readily available to students, only two out of 10 middle school students have "spoken with a teacher (79%) or school counselor (84%) about what classes they should take [in high school], or other things they should do to be ready for college" (p. 29). It is not until Grade 11 or 12 that the majority of students have had the opportunities to speak with a teacher or school counselor about what classes they should have taken or other things they should have done to be ready for college or a career. Even though teachers and career counselors are available, this does not mean opportunities for students to utilize them for college information is easy in the lower grades. Students from the class of 2010 (national survey) said that based on what they know 1 year after high school, they wish they had chosen different courses in high school to better prepare them for careers and colleges of their choice (Hart Research Associates, 2011).

Indecisive People in Regard to Job Satisfaction

Career education leads to job satisfaction. The quality of the career decisions made during the transition from education to occupation is significant for both the individual and society (Camp, 2000). However, with declining career education

programs, employers are aware of the problem and report issues such as absenteeism, poor worker motivation, poor workmanship, and high turnover rates (Walsh & Osipow, 1988). Feller (1996) stated that being good is not good enough because of the advancement of technology and transportation and the fact that people live in a global economy.

Workers compete internationally for jobs today and must be responsible for their own learning, which does not stop once they begin working. Many adults have changed careers because of their lack of understanding of their own interests and the ability to keep up with the fast-paced world around them. This has resulted in job dissatisfaction. According to many career theories, if students plan and create a career path and adjust their plan as needed throughout life, then their future job satisfaction should increase (D. Brown, 2003; D. Brown & Brooks, 1990; Ireh, 1999; Lee, 1993; Peng & Herr, 1999; Pope, 2000; Skorikov, 2009; Super, 2003; Wakefield, 1993).

Influential Reports Affecting Delivery of Career Education

A Nation at Risk

The publication of *A Nation at Risk* influenced the educational system in the United States. This report outlined the deficiency in the U.S. public academic education system and compared it to other industrial nations (National Commission on Excellence in Education, 1983). The comparison showed the United States performing below other nations; and because of this report, academic rigor increased, teaching standards improved, and school hours and days increased. The report also cited the reason for

lower academic performance was the increase in elective courses (Tyack & Cuban, 1995). Most of these elective courses were career technical education (CTE) classes where career education was embedded into the curriculum (Dagget, 2002). Because of this report, legislators passed laws requiring all students to take additional courses in mathematics and science (Tyack & Cuban, 1995), thus decreasing the availability of elective courses which included career education programs. According to Williamson (2006), "Career education courses, which were the cornerstone of education in the 1970s, have virtually disappeared from today's K12 structure" (p. 11).

Twenty-Five Years After A Nation at-Risk

Twenty-five years after *A Nation at Risk* was published, the U.S. Department of Education (2008) reported an increase in academic courses; however, the report still suggests the United States is failing in everything else. This failure reasoning is based on low numbers of children earning a college degree. For every 20 children born in 1983, only five of them earned a college degree. Even though the United States is still a nation at risk, the U.S. Department of Education has been working to improve and thus introduced the No Child Left Behind Act in 2001 (U.S. Department of Education, 2008).

NCLB

In January 2001, President Bush signed the No Child Left Behind (NCLB) Act into law, and the "nation embarked on a new era on how we educate our children and how the federal government supports elementary and secondary education" (U.S. Department of Education, 2002). This act placed a lot of pressure on administrators to

show an increase in Adequate Yearly Progress (AYP) scores (Dagget, 2002). Schools that do not demonstrate an improvement over 2 years face serious consequences from both state and federal authorities (U.S. Department of Education, 2002). The NCLB placed a lot of pressure on all schools to pursue a standards-based reform agenda, while being publically accountable through their AYP scores. This accountability has "resulted in schools and districts gathering achievement and graduation data that highlight how much work needs to be done at the secondary level" (U.S. Department of Education, 2008, p. 4).

To meet NCLB requirements, some school counselors now perform additional duties, such as increased testing duties and accounting for student success rates, attendance rates, discipline, and classroom coverage ("The ASCA National Model," 2003); at the same time, they are not seen as an integral part of the educational system (J. V. Taylor & Davis, 2004). These additional duties are at the expense of one-on-one career counseling. The American School Counseling Association (ASCA) supports school counselors' efforts in positively impacting the academic, personal/social, and career development of students ("The ASCA National Model," 2003). School reform driven by NCLB has shaped the school counseling profession.

The Common Core State Standards Initiative

The CCSS Initiative was a collaborative effort of the National Governors Association and the Council of Chief State School Officers to develop quality academic standards in the core subject areas that can be commonly used across the nation (LaVenia, 2010). In 2009, the initial objectives were to develop standards for English

language arts and mathematics; however, science, history, and career technical courses quickly were included.

As early as 2010, nearly 10,000 comments were received from various stakeholders, including teachers, parents, school administrators, and other citizens concerned with education policy (CCSS, 2010). The final version of the standards was influenced by those comments to include the college- and career-readiness standards into the K12 standards and was released June 2, 2010 (LaVenia, 2010). Now teachers will be able to understand how their daily instructional plans help foster college and career readiness, provided the CCSS are well implemented throughout all grade levels.

The CCSS model should provide school leaders with the means to think across grades and to vertically align lessons to engage their students from what was taught in the past to apply to their future. Being ready for college means high school graduates should have the English and mathematics knowledge and skills necessary to qualify for entry-level jobs and credit-bearing college courses and have the study skills necessary to study for 2- and 4-year institutions (Achieve, College Summit, NASSP, & NAESP, 2013). The NCLB focused on standards and AYP scores; today, CCSS places a huge emphasis on career education by including career preparedness in the English and math standards. The CCSS Initiative (2012) website has gone as far as to include preparedness for college and careers as part of their motto: "Preparing America's Students for College & Career" (para. 1).

The CCSS require educators and school leaders to make changes. For school leaders such as school counselors and administrators, implementing the CCSS requires a

change in instructional goals from high school graduation to college and career readiness. For example, the CCSS (2012) key points in English language arts is to "increase complexity in what students must be able to read so that all students are ready for the demands of college- and career-level reading no later than the end of high school" (para. 1).

The CCSS shifts away from instructional goals and toward students completing graduation requirements for college and career readiness. The CCSS developed a design using a back-mapping method. Students begin with a college and career in mind and work backwards through each grade level, using vertical articulation to prepare students for their future careers. Because career preparedness is now part of the classroom instruction, career counselors need to be involved in the successful implementation of the new standards in the classroom. School counselors must work collaboratively with school leaders and teachers to move the CCSS forward and make the necessary instructional changes; and because CCSS are still being implemented, very little is understood on the role of career counselors and how their impact will change the way students make career decisions.

Thus, U.S. schools have "transformed from a nation at risk of complacency to a nation that is accountable and at work on its education weaknesses" (U.S. Department of Education, 2008, p. 8). This accountability has reported high schools are still performing as low as in 1983, if not worse. The U.S. Department of Education expects public schools to prepare, at a minimum, all children to graduate from high school and pursue their goals. However, with the increase in academic courses and time needed to

implement the new CCSS to include career education while still decreasing elective courses containing career education, students have limited knowledge on goal setting for their careers (Austin & Cilliers, 2011; Peng & Herr, 1999). Thus, career education has been taught sparsely in high schools and just as little in colleges; and as mentioned earlier, colleges only reach five out of 20 students who originally attended kindergarten. In addition, research presently focuses on examining career education curriculums but not from the perception of career counselors on the severity of career decision-making difficulties among high school students.

School Budgets and California AB 1802 Bill

School budgets result in declining school-counseling positions. According to Tom Torlakson (2012), California Superintendent of Public Instruction, "The state [California] is facing a difficult budget situation" (para. 4). The K12 education programs provide services to students for preparing Californians with the skills necessary for successful adulthood, achieving career goals, obtaining gainful employment, and pursuing higher education opportunities (CCSS, 2010). According to Ginsberg and Multon (2011), the American Association of School Administrators predicts there will be "more budget cuts, more job cuts, and fewer resources for programs and personnel" (p. 43). With change from the NCLB Act and implementation of the CCSS, pressures from the public in regard to AYP scores and continuous decreasing budgets have put a lot of strain on administrators. Administrators are focusing their attention on academic core courses and eliminating career education. Some schools have cut, if not eliminated,

classes and resources that are not part of the NCLB's accountability standards (Beveridge, 2010). Schools have seen a decline not only in academic courses but also in staff.

The ASCA model is to guide all students and prepare them for postsecondary education and the world of work. In order for California counselors to meet the needs of ASCA, the California Association of School Counselors (CASC) needed additional funding. In early 2006, CASC acquired funding through the AB 1802 Bill (Lommen, 2007), which hired additional high school counselors to aid at-risk students in their career planning. The bill supplemented school counseling programs for Grades 7 to 12 for career education planning to include career decisions. The purpose of this bill was to adopt a counseling program to include guidance counselors to meet with each student to explain academic and school records, their educational options about including coursework, and academic progress and to include a career guidance program to prepare students for college or the world of work (Zubko, 2010). The short-lived AB 1802 funds stopped in 2008, and districts used the remaining funds as they saw necessary; therefore, many counseling layoffs were reported (California Association of School Counselors, Inc., 2012).

Delivery of Career Education

Academic and counseling services are more effective when students are required to participate and the experiences are integrated into the educational process (Tinto & Goodsell, 1993). Career counselors are vital in the process of helping students clarify and achieve their career plans. However, the ratios of career counselors to students are in

the hundreds; California and Arizona are the largest with over 800 students to one counselor (U.S. Department of Education, 2010); as school counseling positions continue to decline, the ratio continues to increase. In addition to career counseling, the role of school counselors has increased to include character education, violence prevention, graduation requirements, college enrollment, culture diversity, tolerance, bullying, and much more. Thus, counseling departments are working with less manpower and providing more services than before. Over time, career education has been infused into general academic subjects (Evans & Burck, 1992).

Computer-Assisted Career Guidance Systems

Since the 1970s, delivery of career education courses has shifted from being taught by trained counselors into courses being taught by teachers (Gati & Asulin-Peretz, 2011). Because of the increased responsibilities by professional counselors and academic teachers, many career education programs are shifting again toward using the counselor-free approach through the use of computer-assisted career guidance systems (CAGSs).

Although CAGSs are one of the fastest growing developments in counseling and career guidance (Walsh & Osipow, 1988), the infrastructure of online courses is not readily available or feasible for public education (Walsh & Osipow, 1988). Harris-Bowlsby (1998) conceptualized CAGS as a system containing information where students can access and retrieve enormous amounts of career information. Gati et al. (2010) noted the importance of combining each element of the CAGS with the addition of a trained career counselor for a successful career education program. Computers are

linear and can be manipulated by its users' input; therefore, a trained counselor is needed to help with indecisive students.

K16 Bridge Program

The K16 Bridge program includes many components for guiding high school students to transition into postsecondary education and the world of work. One component is the career education unit. The researcher identified the K16 Bridge program because it embeds EUREKA, which is a well-developed CAGS program. EUREKA includes trait and factor assessments and uses constructivist views to aid students in creating plans for their future. In addition, the K16 Bridge program offers trained counselors, teachers, and administrators to aid students in their career development process (Lewis Center for Educational Research, 2009).

One necessary element of an effective career education course is a developmentally appropriate delivery of content (Williamson, 2006). As such, career development course content needs to build upon itself, by guiding students in gaining step-by-step skills (Herr & Cramer, 1996). EUREKA offers career self-assessments to help students find career options that work for them. The process includes career assessments that will assist students in identifying their personality through the True Colors test. Next, the students will identify their transferable skills through the MicroSkills assessment. MicroSkills helps students discover skills they can use in the world of work. Last, the students will experience a "reality check" by identifying world-of-work labor market requirements for a given job or career through the Occ-U-Sort questionnaire (EUREKA, 2012).

Through the K16 Bridge program, ninth-grade students develop a 4-year plan to include high school courses to better prepare them for postsecondary education or the world of work. This study aimed to examine the perceptions of high school counselors and principals to determine to what degree the EUREKA career development program addresses the career decision-making difficulties as determined by the Gati et al. (1996) taxonomy of difficulties in career decision making.

Within the past few years, the founder and creator of the K16 Bridge program, Chris Piercy (2010), believed the program had made significant improvements, especially transitioning high school students, with a career plan, into an appropriate postsecondary education needed to fulfill their career goals. By improving their practice, they claim to have added value to career development programs (Lewis Center, 2009). This study gathered qualitative and quantitative data to determine whether students are being serviced by the K16 Bridge program from the perceptions of trained high school counselors and principals.

Organization Position

Organizations make decisions; they make decisions in the same sense in which individuals make decisions (Ott, Shafritz, & Jang, 2011); and because public schools are political and decisions are influenced over critical issues with differing points of view, such as the CCSS, these decisions drive school reform. School reform is defined as the change and development in any educational dimension (Sungtong, 2007). The CCSS are goals set by the federal government to prepare students for college and the workplace. These goals place a lot of pressure on school administrators for change.

In bureaucratic organizations, such as schools, change should be based on some standard measure of operations and performance, such as API scores. Standards are set to measure performance, and API scores are those measurements to better achieve goals and values of an organization. Bureaucratic organizations operate using standard operating procedures and rules rather than engaging in rational decision making on a continuous basis (Ott et al., 2011). The bureaucratic model also makes choices according to rules and processes which have been adaptive and effective in the past. This type of decision process is long and devalues personal problems. Today's principals are boxed into implementing goals from the federal government; at the same time, they need to focus on personnel issues regarding their students (world of work and postsecondary goals) and staff (career counselors' duties and responsibilities).

Usually when theorists refer to the structure of an organization, they are talking about the relatively stable relationships among the positions, groups of positions, and progress of work that make up the organization (Ott et al., 2011). According to Ott et al., organization theory is concerned with the vertical differentiations: "hierarchical levels of organizational authority and coordination, and horizontal differentiations between organizational units—such as those between product or service line, geographical areas, or skills" (p. 197). The modern structural organizational theory is concerned with traditional theory with the added layer of rationality. The goal of rationality is to increase the "production of wealth in terms of real goods and series" (p. 197).

Modern structural organizations are assumed to be rational institutions whose primary purpose is to establish goals (Ott et al., 2011). Today, school systems have many

goals. Many of these educational goals are set by the federal government, and ultimately the responsibilities trickle down the hierarchy of education to site principals. Today, principals are seen as higher management, and they define the division of labor within their schools. According to Fayol (as cited in Ott et al., 2011), the idea of division of work is to increase efficiency with the same effort.

Organizations, particularly education, are also seen as complex systems of individuals and coalitions, each having its own "interests, beliefs, values, preferences, perspectives, and perceptions" (Ott et al., 2011, p. 271). Goals are an ongoing maneuvering strategy between horizontal and vertical boundaries. Site principals are maneuvering their school (reform) to meet the goals set by the federal government which affect other departments, such as counseling. Thus, organizational goals change with shifts in the balance of power among coalitions.

History in career counseling clearly states career guidance was once a one-on-one interaction between counselors and students. Today, CCSS has embedded career education into core subjects' standards, such as English and mathematics. Therefore, the CCSS has moved career education (division) from career counselors and into the classroom to produce "more and better work with the same efforts" (Ott et al., p. 48). Because schools are bureaucratic, school principals have the authority to make decisions to restructure their school. Given the different roles and perspectives of a principal and a counselor in the K12 system, this research sought the perceptions of each for the sake of comparison.

Role of Career Counselors and Administrators

Studying the way career counselors process information on how their students suffer from career decision-making difficulties is important, as it affects the counseling process and how counselors interact with their students. It is also important to understand how school administrators view their students' career decision-making difficulties, because their decisions regarding school reform can directly impact the counseling services provided to their students. Research has shown that the support of school principals for counselors' roles is essential to the development, application, and maintenance of counseling programs (Zalaquett, 2005).

Effective principals need to be knowledgeable about the challenges school counselors encounter so their decisions on school reform do not hinder counseling duties. The principal largely determines the role and functions of the counselor within his or her school (Ribak-Rosenthal, 1994). Moreover, many principals seem to hold a view of the proper role for school counselors that is different from that described in the standards of the counseling profession (Lampe, 1985). Research also suggests that ignoring the influences of a principal can negatively impact the implementation of counseling programs. Thus, there is a need to consider the principals' insights on career education compared to career counselors to recognize if there is a difference in their perceptions. Career counselors and principals increase their chances to collaborate successfully when they feel that their professional contribution is helping students (Zalaquett, 2005).

As the literature demonstrates, a career decision is a complex process, and many students encounter difficulties when making these important decisions. When students

become overwhelmed, consequences occur. According to Gati et al. (2010), career decision-making difficulties have three consequences: (a) not beginning the career decision-making process, (b) halting the process before reaching a decision, or (c) making a nonoptimal decision. It is important to the education community to understand the consequences of students' difficulties when making career decisions. The administrators and counselors need to recognize the difficulties to avoid the consequences mentioned.

Many students seek guidance from a career counselor and rely on classroom instruction to guide them when making future choices. Although career counselors and principals recognize the importance of helping to guide students through career indecisiveness, less emphasis is given to the distinction among the different identified decision-making difficulties. Gati and his colleagues (1996) identified 10 decision difficulties students suffer from with career indecisiveness. Gati et al.'s (1996) taxonomy provides a systematic theoretical framework for categorizing the various challenges individuals face when making career decisions (Gati et al., 2010). Based on this taxonomy, the Career Decision-Making Difficulties Questionnaire was developed as a means of locating the focus of an individual's career decision-making difficulties (Gati et al., 1996).

Taxonomy of Career Decision-Making Difficulties Questionnaire (CDDQ)

The empirical research on career indecision has focused on developing various measures for examining individual differences in career indecision (Gati et al., 1996). These measures included the Career Maturity Assessment (CMA), Career Decision Scale

(CDS), My Vocational Situation Scale (MVSS), The Vocational Decision-Making Difficulty Scale (VDMS), and Vocational Difficulty Scale (VDS) (D. Brown, 2003; Gati et al., 1996; Walsh & Osipow, 1988). These theoretical approaches have been used to deal with career indecision, each emphasizing a different aspect. For example, the psychodynamic approach focuses on psychological or emotional pain, often thought of as anxiety and is considered an internal conflict (Leiper & Maltby, 2004). Another example is developmental and cognitive psychology. This theory has shown that students adapt and change their problem-solving approaches not only when they encounter failure but also after being successful in solving a problem (Chronoula, 2012). These theories align with Bandura's self-efficacy theories. The psychodynamic, developmental, and cognitive theories (as well as some others) all pertain to one's ability to develop decision skills through normal stages of career maturity.

Gati et al. (1996) reviewed these measures and concluded a new framework, which combines theoretical analysis and empirical tests to provide a unique and significant contribution to research on career indecision. They developed and studied career indecisiveness and developed a theory-based taxonomy of career decision-making difficulties, referred as the Career Decision-Making Difficulties Questionnaire (CDDQ) (Lancaster, Rudolph, Perkins, & Patten, 1999).

The taxonomy of the CDDQ challenges previous measures of career decision making through its establishment of a theoretical base, while also maintaining sound empirical standards (Lancaster et al., 1999). According to the decision-making theory, an individual observes a problem and is able to explore possible alternatives and make the

best decision to avoid negative outcomes (Miller-Tiedeman, 1977). Gati et al. (1996) defined decision making, as "the best decision is the one that best helps to achieve the decision maker's goals" (p. 511). Therefore, an indecisive student may have problems in many areas of the decision-making process, including unclear goals and the inability to formulate future plans.

Career decisions involve students making decisions, and the Internet provides an enormous amount of information on careers, colleges, alternatives to these careers and colleges and such (Gati et al., 1996). Students also need to characterize the occupations in a meaningful way, such as length of training, type of degree, and cost of postsecondary education (Osipow & Fitzgerald, 1996). Also, there are uncertainties that play a major role in one's life that are unexpected events, such as death in the family, relocation, and natural disasters (D. Brown, 2003). An enormous amount of options and information leads to choice overload and results in not making a decision (D. Reed et al., 2011).

Relying on decision theory, Gati et al. (1996) first developed a model of an "ideal career decision maker" (p. 511). An ideal career decision maker "is someone who is aware of the need to make a decision, is willing to make it, and is capable of making the 'right' decision" (p. 511). High school students are far from being ideal career decision makers (Lee, 1993). Gati et al. (1996) defined any deviation from the ideal career decision maker as a problem that could affect an individual: "(a) by preventing the individual from making a decision or (b) by leading to a less than optimal decision" (p. 511).

The category of difficulties was defined by Kleiman and Gati (2004), as a set of deviations and deflections from an "ideal career decision (that is, a decision that is based on an appropriate process and is compatible with the individual's goals and resources" (p. 43). The CDDQ was developed using descriptions of career decision difficulties from 200 career counselors and 10 expert vocational psychologists (Gati et al., 1996). Gati et al. compared this list with the theoretical model to ensure that "it included all the import and relevant difficulties" (p. 512). In the initially proposed taxonomy there were 44 difficulties expressed in terms of concepts adopted from decision theory and then adapted to the area of career decisions. Because of the length of the questions and to avoid "cognitive overload and motivational decrease (due to an overly long questionnaire)" (p. 514), they decided to use one representative item for each difficulty. Gati et al. asked five experienced career counseling psychologists to match each of the items in the questionnaire with one particular difficulty from those included in the proposed theoretical model. Thus, the 10 categories of difficulties were defined.

The taxonomy is hierarchic, in which broad categories of difficulties are separated into subcategories, which are divided into three major categories: lack of readiness, lack of information, and inconsistent information. Each category has subcategories to help further identify career decision-making difficulties. The taxonomy resulted in 10 career decisions difficulties: (a) lack of motivation, (b) indecisiveness, (c) dysfunctional myths, (d) lack of knowledge about the process of career decision making, (e) lack of information about self, (f) lack of information about occupations, (g) lack of information about ways of obtaining additional information, (h) unreliable information, (i) internal

conflicts, and (j) external conflicts. Each of these 10 difficulties was defined by 200 career counselors and 10 expert vocational psychologists in Gati et al.'s (1996) study, "A Taxonomy of Difficulties in Career Decision Making."

Lack of Readiness

Lack of readiness (prior to beginning the process) includes four subcategories of difficulties that precede the engagement in making a career decision: lack of motivation, indecisiveness, dysfunctional myths, and lack of knowledge about the process. Lack of readiness categories took those four subcategories and broke them into two pairs. According to Gati et al. (1996), one pair includes the following:

> [Difficulties that are related to *lack of motivation* to] engage in the career decision process and *general indecisiveness* concerning all types of decision making. The other pair includes difficulties related to *dysfunctional myths* (e.g., irrational expectations) about the process of career decision making and the *lack of knowledge about the steps* involved in this process. (p. 512)

1. Lack of motivation, defined by Gati (2011) in the CDDQ manual, is the "lack of willingness to make a decision at this point" (p. 3). This definition was derived from the identified experts in Gati et al.'s (1996) study on how they perceive students were unwilling to make a career decision, work was not perceived as the most important thing in life, and students felt that time will lead to the "right" career choice.
2. Indecisiveness, defined by Gati (2011) in the CDDQ manual, is the "general difficulty in making decisions" (p. 3). This definition was derived from the identified experts in Gati et al.'s (1996) study on how they perceive students have general difficulty in making decisions, need confirmation and support for decisions, have a tendency to avoid commitment, and fear of failure.

3. Dysfunctional myth, defined by Gati (2011) in the CDDQ manual, is the "distorted perception of the career decision-making process, irrational expectations of it and dysfunctional thoughts about it" (p. 3). This definition was derived from the identified experts in Gati et al.'s (1996) study on how they perceive students have the belief that entering a career will solve personal problems, there is an ideal career which can fulfill all aspirations, and that a career choice is a one-time thing and a life-long obligation.
4. Lack of knowledge about the process of career decision making, defined by Gati (2011) in the CDDQ manual, is "lack of knowledge about how to make a decision wisely, and specifically a lack of knowledge regarding the specific steps involved in the career decision-making process" (p. 4). This definition was derived from the identified experts in Gati et al.'s (1996) study on how they perceive students' steps involved in making a career decision, factors to take into consideration, and how to combine information concerning the self and career alternatives.

Lack of Information

Lack of information (during the process) consists of four subcategories to include lack of information about self, lack of information about occupations, and lack of information about ways of obtaining additional information. According to Gati et al. (1996), there are three major categories, and because the "last two categories refer to external, objective information they are more closely related to each other than the first one (which involves the individual)" (p. 512).

5. Lack of information about self, defined by Gati (2011) in the CDDQ manual, is "a situation where one feels that one does not have enough information about oneself

(e.g., about career preferences, abilities etc)" (p. 4). This definition was derived from the identified experts in Gati et al.'s (1996) study on how they perceive students' lack of information about abilities, personality traits, preferred career alternatives, career-related preferences, abilities in the future, personality traits in the future, career alternatives that will be preferred in the future, and career-related preferences in the future.

6. Lack of information about occupations, defined by Gati (2011) in the CDDQ manual, is "a lack of information regarding the existing array of career options: what alternatives exist and/or what each alternative's characteristics are" (p. 4). This definition was derived from the identified experts in Gati et al.'s (1996) study on how they perceive students' lack of information about the variety of career or training alternatives, characteristics of the career or training alternatives that interest the student, variety of future career or training alternatives, and future characteristics of the career or training alternatives.
7. Lack of information about ways of obtaining additional information, defined by Gati (2011) in the CDDQ manual, is "a lack of information about ways of obtaining additional information or help that may facilitate decision making" (p. 4). This definition was derived from the identified experts in Gati et al.'s (1996) study on how they perceive students' lack of information about ways of obtaining additional information about the self, ways of obtaining additional information, and about career and training alternatives.

Inconsistent Information

The third category (during the process) consists of three subcategories of difficulties that arise during the actual process of career decision making to include unreliable information, internal conflicts, and external conflicts. These three subcategories "include conflicts within the individual; and external conflicts, which include conflicts involving the influences of significant others. Here too, we assume that the last two categories of the conflict are more closely related to each other than to the first" (Gati et al., 1996, p. 512).

8. Unreliable information, defined by Gati (2011) in the CDDQ manual, is "the individual feel[s] that he / she has contradictory information about himself / herself or about the considered occupations" (p. 4). This definition was derived from the identified experts in Gati et al.'s (1996) study on how they perceive students' unreliable information about abilities, personality traits, preferred career alternatives, career-related preferences, existence of a particular career or training alternative, and characteristics of career or training alternative(s).
9. Internal conflicts, defined by Gati (2011) in the CDDQ manual, is "a state of internal confusion. Such internal conflict may stem from a difficulty in compromising in the many factors the individual views as important, when some of these factors are incompatible each other" (p. 4). This definition was derived from the identified experts in Gati et al.'s (1996) study on how they perceive students unwilling to compromise, several equally attractive career alternatives, dislike or accessible career alternatives, something in a preferred career alternative is undesirable, preferences

that cannot be combined in one career alternative, abilities are insufficient for the requirements of the preferred career alternative, and abilities exceed those required in the preferred career alternative.

10. External conflicts, defined by Gati (2011) in the CDDQ manual, is "a gap between an individual's preferences and the preferences voiced by others who are significant to him / her, or a contradiction between the opinions of two significant others" (p. 4). This definition was derived from the identified experts in Gati et al.'s (1996) study on how they perceive students' disagreement between a significant other and the individual concerning the desirable career alternative and career-related characteristics, disagreement between different significant others concerning the recommended career alternative and career-related characteristics.

The three major categories of difficulties and the specific categories of this taxonomy are summarized in Figure 1.

The CDDQ provides support for career counselors to help guide their students with career decision difficulties (Gati & Saka, 2001). The CDDQ also can be used to assess particular groups. For example, high school counselors can use the CDDQ to facilitate the identification of "groups of students who have difficulties related to one of the three major categories and who may benefit from the same intervention" (p. 339). Once these groups are identified, high school counselors can group students with similar career decision-making difficulties to organize group counseling versus one-on-one counseling. This will save valuable time, considering the student-to-counseling ratio is high.

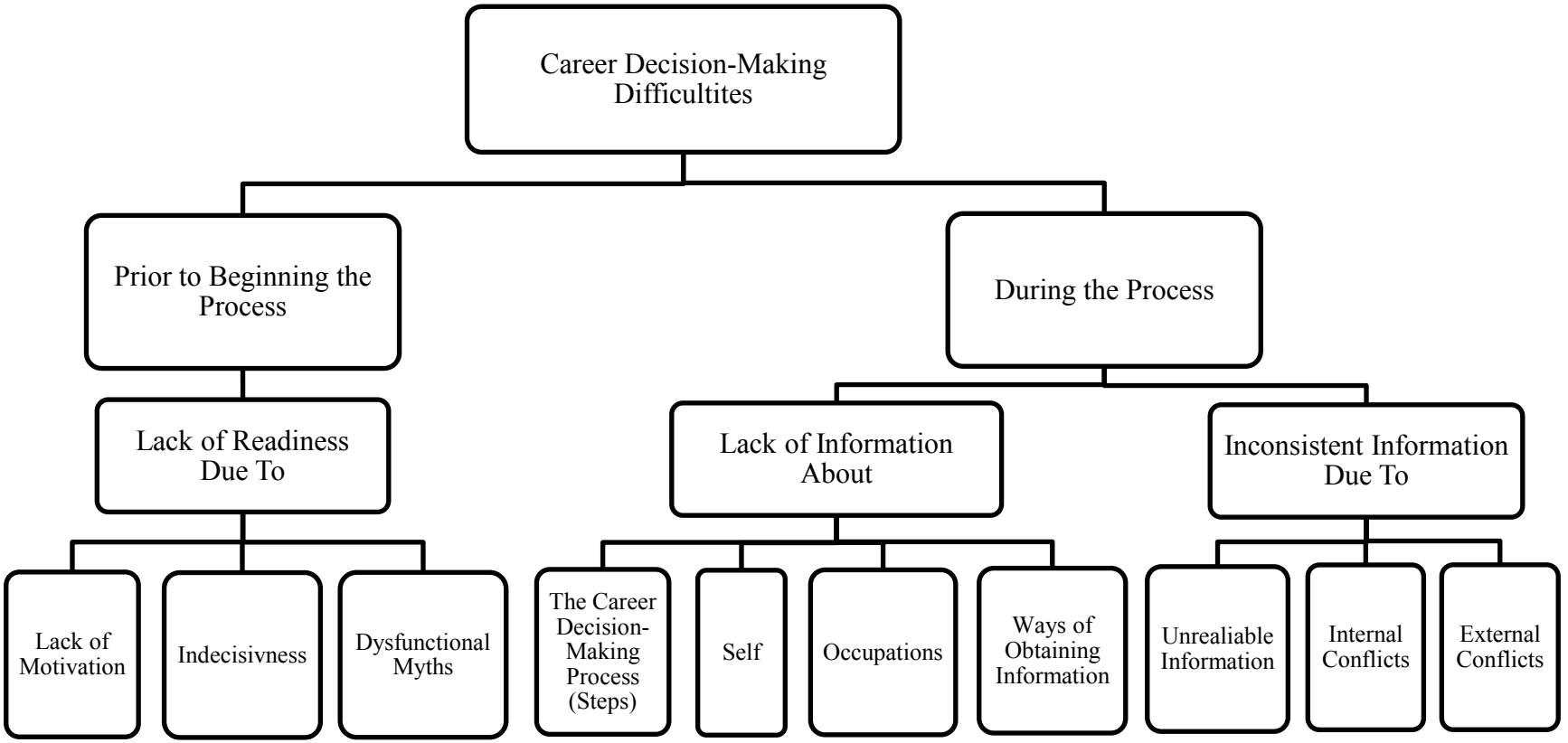

Figure 1. The theoretical taxonomy of career decision-making difficulties (CDDQ).

The Expert Questionnaire

The expert questionnaire (Gati et al., 2010) was developed to collect information regarding the perceptions from expert career counselors about the severity of career decision-making difficulties among their students. Relying on Gati et al.'s (1996) taxonomy of career decision-making difficulties, the expert career counselors ranked the severity of each difficulty to determine the treatment for those difficulties. Understanding the cause of the difficulties in career decision making is important, because the cause may affect the severity of the difficulty and the type and length of treatment required (Gati et al., 2010). Gati et al. hypothesized two types of causes: (a) internal versus external and (b) cognitive versus emotional.

Difficulties can arise internally or externally within a student. Internal difficulties stem from the individual (for example, self-efficacy), and external difficulties stem from outside forces (for example, parents). Internal difficulties are more severe, because they require psychological intervention and require change within the student. Another difficulty can arise through cognitive learning, involving the collection and processing of information and emotional behavior where personality influences decision difficulties. Emotional and personality-related difficulties would be more severe, requiring professional counseling.

The first step toward guiding students is recognizing the perceptions of career counselors and principals in regard to career decision-making difficulties among their students so they can offer opportunities for students to overcome these barriers, before overwhelming them with vast amounts of career information. Any information (even

perceptions) on students' career decision-making difficulties can then be used by counselors and principals to ensure that career development programs and services meet students' needs and support them in overcoming decision-making difficulties (Gati et al., 2010).

Summary of the Literature

Many career education programs have been implemented and practiced through the years. As the environment changes, with new technology, so do career education programs in our school systems (D. Brown, 2003). Students have the freedom to consider career options based on more than a vocational trade—through decisions based on self-knowledge, occupational information, and predictions of their future (D. Brown & Brooks, 1990). Career counselors have used many tools to acquire information about their students, ranging from Franks Parsons and one-on-one counseling to personality and interests assessments used in larger settings in classrooms and online programs. The methodology or strategy of using one-on-one trained professionals in career development is shifting toward using online programs and classroom teachers with guidance from trained professionals to concentrate on students' individual interests. In the past, assessments were administered by a psychologist or counselor, and the results were delivered to their students using a one-on-one approach. Now, with technology, entire programs are available for students online; one in particular is the K16 Bridge program.

An effective career education course is the sequential presentation of concepts. EUREKA has identified three career guidance components that are developmentally

appropriate for high school students. Each component is divided into functions that help students relate to their characteristics and occupational alternatives. The first component helps students identify personal characteristics to gain self-knowledge. An important goal is to help students recognize the connection between their personal characteristics with future career options. Content needs to include interest inventories, ability tests, and discussions. The second component emphasizes educational and occupational exploration. An important goal in this component is to help students recognize the connection between current academic behavior and future career options. The final component focuses on career decision making and career planning. As such, the activities are designed to help students prepare for postsecondary options and give them knowledge to make informed decisions.

It is of great interest to the academic community to understand how a career education program, such as the K16 Bridge program, provides information to students, because the K16 Bridge program is actively used in three states: California, Colorado, and Texas. Nine colleges bridge the program with 67 high schools, 20 middle schools, and six elementary schools. In the fall of 2011, there were an expected 50,000 students participating in the K16 Bridge program.

The studies reviewed provide ample evidence that career development programs are in need and must blend prior theories of various career education models to meet the needs of students today. The field of career counseling and guidance is continually shifting and changing to reflect the changes in education, society, and the world of work. Career education programs need to address, from the perceptions of high school

counselors and principals, where students are having decision-making difficulties as determined by the Gati et al. (1996) taxonomy.

CHAPTER III

METHODOLOGY

This chapter describes the design of the study, the sample and population, the instrumentation, data collection methods, the analysis of the data, and the limitations of this study. This study considered the career decision difficulties of high school students when making career decisions from the perception of career counselors and principals. The research instrument used was the expert questionnaire from Gati et al. (2010), which is based on Gati et al.'s (1996) taxonomy of career decision-making difficulties. This instrument was translated from Hebrew into English, and some questions were omitted for this dissertation. Approval from Dr. Gati was given to use this instrument.

Statement of the Purpose

The purpose of this comparative research study was to determine the perceptions of career counselors and principals on the types of career decision-making difficulties experienced by high school students and the extent to which a large-scale high school technology-based career development program addresses these difficulties, using the framework of career decision-making difficulties outlined by Gati et al. (1996). In particular, this study examined the perceptions of school counselors and principal on the severity of high school students' career decision-making process.

Research Questions

The following research questions were examined during this study:

1. To what degree do career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by Gati et al.'s (1996) taxonomy of difficulties in career decision making?
2. To what degree do career counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the K16 Bridge program using the EUREKA career development program?
3. Is there a significant difference in the degree career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by the Gati et al. (1996) taxonomy of difficulties in career decision making?
4. Is there a significant difference in the degree career counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the EUREKA career development program?

Research Design

Causal-comparative research design was selected for this study. It is sometimes referred to as an *ex post facto* study whereby the effects of the alleged cause(s) have already occurred and must be studied in retrospect. While correlational studies attempt to identify relationships, in this chosen design this study attempted to identify cause-effect relationships. The causal-comparative design studies individuals because they belong to a group, whereas experimental studies use individuals randomly selected and assigned to

two or more groups (Gay, Mills, & Airasian, 2006). Because the researcher had access to an already existing population, the researcher chose to use the causal-comparative study rather than a random sample selected from a single population.

This study allowed the researcher to isolate and target dependent variables, in this case, the career decision-making difficulties, identified by Gati et al. (1996), among high school students as perceived by high school counselors and principals. A weakness of a causal-comparative design is that it is difficult to control for intervening variable(s), and in order to show a true representative sample, a relatively large sample size (75-200) is important (Gay et al., 2006).

The independent variable in this case is the organizational position, including the categories, principal and counselor. An organizational position is when two different positions within an organization share common outcomes, such as principals and counselors (Burt, 1980). According to Wheat (2005), an interpretation of organizational position is when the principal and counselor share decision-making responsibilities when offering career education programs to their students to prepare them for the world of work and postsecondary education, specifically, those who actively participate in a career education program such as the K16 Bridge. Permission was granted by the director and developer of the K16 Bridge program to use his identified career counselors and principals for this study (Appendix A). These participants were chosen because they were considered to represent the dominant population in career education and development. Every effort was made to collect appropriate demographic information about the group in section one of the survey.

Population and Sample

Stevens (1996) defined population as any entire collection of people with the characteristics and knowledge that the researcher wishes to understand. Fraenkel and Wallen (2006) further explained that there is very rarely enough time or money to gather information from everyone or everything in a population; the goal becomes finding a representative sample (or subset) of that population.

A sample can be defined as a specific collection of people used for a study. The researcher used a purposive sample. A purposive sample is a nonrepresentative subset of some larger population and is constructed to serve a very specific need or purpose (Fraenkel & Wallen, 2006). Also, a purposive sample is a sample selected in a deliberate and nonrandom fashion to achieve a certain goal (Stevens, 1996). In this study, the researcher sought out participants to represent views from both the career counselor and principal to ensure that all viewpoints were adequately represented. Both these groups have expert knowledge and experience in the area of career education.

Population

The target population in this study was high school career counselors and principals in California's San Bernardino County who participate in the K16 Bridge program. According to the California Department of Education DataQuest (2010), in the 2010-2011 school year there were 1,156 full-time (FTE) high school principals and 4,111 full-time high school counselors in the state of California.

Sample

The target sample population of this study consisted of counselors and principals whose schools are actively using the K16 Bridge program, which encompasses the EUREKA career education program. Participants surveyed for this research were those who attended the K16 Bridge conference held in Victorville, California. This target sample population was schools located in California's San Bernardino County.

The sample for the survey included 25 high schools, one elementary school, one middle school, one community college, and one university. The individuals included in the sample represented a cross-section of educational backgrounds and training in career education. The total number of schools invited to participate was 29. There were 122 participants, which consisted of 76 counselors and 46 principals. Counselors' numbers varied from high school to high school; some high schools had one counselor while other schools had up to six counselors. Principal included principals, vice/assistant principals, and K16 Bridge site coordinators. There were a minimum of two administrators at each high school, with one high school having a designated site K16 Bridge coordinator. The goal of this study was to receive 73 responses, which is about 60% of the total surveys. Of the 122 individuals who were asked to participate in the survey, 108 surveys were turned in. The breakdown was as follows: 68 out of the 76 counselors returned surveys, resulting in a return rate of 89% of the total surveys; 35 out of the 46 principals returned surveys, resulting in a return rate of 76% of the total surveys. There were four other surveys returned from other participants, and one participant declined to take the survey, for a total of 107 returned surveys and a return rate of 88.5 %. According to Gay et al.

(2006), a sample is expected to return 60-70% to be significant to test the null hypothesis. The size of this sample provided enough data to test the null hypothesis for statistically significant relationships.

The rationale for selecting the participants in the K16 Bridge program was twofold. The first criterion was proximity and access to the participants for the researcher. The researcher personally knew the creator and key decision maker for the K16 Bridge program, who gave the researcher access to the participants through the K16 Bridge website and conferences. The ability to have access to the participants' e-mail to send survey links and post the survey link on their website was helpful for the collection of data. In addition, the K16 Bridge participants all have expert knowledge on career education, which makes them ideal candidates for gathering their perceptions on career education. These participants are educators who use career education programs on a daily basis.

The Research Instruments

Participants were administered a modified version of the expert questionnaire (Appendix B) designed by Gati et al. (2010), along with demographic information. The expert questionnaire was developed specifically for the purpose of measuring the variables in Gati et al.'s (1996) theoretical taxonomy of 10 difficulties of career decision making among students from the perceptions of expert counselors.

The study was piloted in Israel among expert counselors in 2010 and was validated and received IRB approval (Gati et al., 2010). Gati surveyed 28 career counselors from public and private counseling centers in Israel. These counselors were

identified as experts in the field of career counseling and guiding clients with a variety of career decision-making problems. All of the participants were familiar with the Career-Decision-Making Difficulties Questionnaire (CDDQ) and its underlying taxonomy from previous academic studies and workshops (Gati et al., 2010).

Gati's experts' questionnaire had three sections. In Section I, the experts were asked to evaluate the severity of each of the 10 difficulty categories of the career decision-making process, using a nine-point Likert scale. In Section II, the experts were asked to report their judgments about the sequence in which difficulties should be treated, using a numbered rank. In Section III, the experts were asked to describe each of the 10 difficulty categories according to four different characteristics that may be related to the severity of the difficulties: emotional or cognitive, internal or external, short term or long term, and what prevents making a decision or leads to making a less than optimal choice (Gati et al., 2010).

Permission was received from Gati for the researcher to use the expert questionnaire. Gati also gave the researcher permission to use portions of the questionnaire to meet the needs of the researcher (Appendix C).

The Expert Questionnaire

The revised expert questionnaire consists of three sections. In the first section the questionnaire gathered demographic information about the participant. The demographic information consisted of gender, age, highest level of education, current employment level, current job title, and years of service in education. In the second section, the questionnaire asked the participants to rate the extent to which the EUREKA career

development program addressed each of the 10 categories of difficulties in the career decision-making process, utilizing a nine-point scale where 1 represents "does not address" and 9 represents "strongly addresses." In the third section, the questionnaire asked the participants to rate the extent to which the same 10 categories of difficulties are present among their students in the career decision-making process, based on their perception, also utilizing a 9-point scale where 1 represented "not present at all" and 9 represented "very present." This section of the survey also included an open-ended question giving participants an opportunity to explain in detail the considerations that guided them in rating their perceptions of the presence of each difficulty.

Data Collection

Since this was a comparative study, a self-administered questionnaire was used. Before providing the questionnaire to the participants, appropriate paperwork was accomplished and forwarded to the Institutional Review Board (IRB) for its review and approval (Appendix D). Once final approval was received by the governing IRB, the study was started in December 2012 and concluded in January 2013.

A pilot test was not needed for the expert questionnaire, because this survey had already been validated, deemed reliable, and had been utilized in many instances by other researchers in the past. At the K16 Bridge conference on September 7, 2012, participants attended a presentation referencing Gati et al.'s (1996) 10 decision difficulties during the main session of the conference. The purpose of this presentation was to prepare participants for this survey. After the presentation, the participants had common knowledge and understanding of the vocabulary used in the survey in regard to Gati et

al.'s 10 career decision difficulties. After the conference, the participants were e-mailed invitations to participate through an online survey using ZipSurvey; or per request, the researcher mailed participants a paper survey to be filled out and returned in a prepaid envelope to the researcher. Prior to answering any question in this study, participants were asked to confirm their consent to participate in the research (Appendix E). A description of the informed consent was included as the first screen respondents encountered after they clicked on the survey link that was included as part of the e-mailed invitation. Once participants gave their consent, the survey continued to the first question. If participants did not give their consent, the survey would automatically terminate. Respondents who requested a mailed copy of the survey were also sent a detailed informed consent letter and were asked to sign it prior to beginning the actual survey. By using ZipSurvey, the survey participants remained anonymous. Responses went directly to ZipSurvey with no personally identifying information, and the researcher used only compiled data.

Reminder e-mails were sent to those who had not yet responded 1 week after the initial invitation had been sent. Participants who had not completed the questionnaire or paper surveys by December 31, 2012 were asked to complete the survey at a follow-up K16 Bridge meeting on January 9, 2013.

Data Analysis

The data were analyzed using descriptive statistics (means, percentages, and so forth) using the statistical software SPSS and Microsoft Excel. Frequencies and percentages were computed for demographic characteristics on the questionnaire. These

data were intended to help identify the characteristics of the participants who make decisions in career education.

The data for Research Question 1 were analyzed using descriptive statistics, specifically including frequencies, percentages, means, and standard deviations to determine to what degree career counselors and principals perceive the EUREKA career development program addressed the career decision-making difficulties as determined by Gati et al.'s (1996) taxonomy of difficulties in career decision making (Survey Question 8).

To analyze the data for Research Question 2, the analysis also included descriptive statistics, including frequencies, percentages, means, and standard deviations to determine to what degree career counselors and principals perceive the presence of difficulty in the 10 categories noted by Gati et al. (1996) to be present among students at the schools served by the K16 Bridge program using the EUREKA career development program (Survey Question 7).

For Research Question 3, the analysis used was the analysis of variance (ANOVA) test which is a simple extension of the *t* test. The *t* test compares the differences in the mean scores between two groups; however, this study had three groups: principals, counselors, and other (other were participants who did not title themselves as a career counselor or principal but were still part of the sample population because they participate in the K16 Bridge program) to determine if there is a significant difference (Gay et al., 2006; Thorne & Giesen, 2003) in the extent to which all three groups perceive the EUREKA career development program addresses the career decision-

making difficulties as determined by the Gati et al. (1996) taxonomy of difficulties in career decision making. This analysis compared the response differences between principals, counselors, and other participants in how they assessed the effectiveness of the EUREKA career development program.

For Research Question 4, the analysis also included the ANOVA test. The ANOVA test compared the differences in the mean scores between three groups to determine if there was a significant difference (Gay et al., 2006; Thorne & Giesen, 2003) in the extent to which career counselors, principals, and other participants perceived difficulties to be present among students at the schools served by the K16 Bridge program using the EUREKA career development program. This analysis compared the response differences between principals, counselors, and other participants in how they assessed the presence of difficulties among students.

Finally, in order to determine whether the EUREKA career development program addresses the difficulties that are most in need of addressing (categories where difficulties are most present) and to see if there are any deficiencies in addressing difficulties that are perceived as highly present (categories assessed with a high presence but with low levels of effectiveness in addressing), the researcher prepared a presence/effectiveness matrix. This matrix contained four quadrants that plotted each difficulty on a scale, which fell into the following classifications: (a) highly present/strongly addressed, (b) highly present/not strongly addressed, (c) not very present/strongly addressed, and (c) not very present/not strongly addressed. By plotting out the difficulties on this matrix, categories that were viewed as highly present but indicated that the EUREKA career development

program insufficiently addresses the career decision-making difficulties could be identified and discussed.

Delimitations and Limitations of the Study

Roberts (2010) defined delimitations as characteristics selected by the researcher to define the boundaries of the study. This study focuses on career counselors and high school principals who participate in the K16 Bridge program. The review of literature and research was conducted in January of 2012 through January of 2013. Data collection for this study was from December 2012 through January 2013.

Many career education programs exist in the educational arena. EUREKA was the only career education program considered for this study. This study was limited to career counselors and principals who use the K16 Bridge program and their perceptions of student career decision-making difficulties. A bias may exist among participants responding to the questions. The participants in this research do not treat the EUREKA career education program equally. For example, some of the schools offer an intense semester-long career program utilizing all the tools, while other schools in the K16 Bridge program do not offer any career education or tools to their students. Therefore, this could have skewed the perceptions of the career counselors and principals from school to school.

Roberts (2010) defined limitations as elements over which the researcher has no control. It is presumed that the career counselors and principals gave responses to reflect their true perceptions of student's career decision difficulties. It is also assumed that the participants gave accurate information and were honest in their responses. The

researcher assumes the sampling of high school counselors and principals are representative of educators who administer career education programs to high school students. Within this sample of educators, there was a representative distribution of demographic and economic schools, which may influence career decision making among high school students. The researcher was only able to make inferences of what was understood to be the counselors' perspective on their career planning and career development process. Participants may have chosen not to participate or take the survey seriously.

Summary

Chapter III described the methodology for this dissertation study. This comparative research study determined the perceptions of career counselors and principals on the types of career decision-making difficulties experienced by high school students and the extent to which a large-scale high school technology-based career development program addresses these difficulties, using the framework of career decision-making difficulties outlined by Gati et al. (1996). This chapter detailed the statement of the purpose, reviewed the research questions, described the population and sample, analyzed the research instruments, explained the procedures for data collection and analysis, and included the statistical methods used to answer the research questions discussed. The data obtained from this research study are applicable to educational organizations and perhaps other groups who provide career education programs to high school students. The following chapters present an analysis of the data gained from the study and the interpretation and recommendations based the results.

CHAPTER IV

ANALYSIS OF THE DATA

This chapter details the statement of the purpose, reviews the research questions, describes the population and sample, provides an analysis of the data for each research question, and presents a summary of the findings. This study considered the perception of career counselors and principals on the types of career decision-making difficulties experienced by high school students and the extent to which a large-scale high school technology-based career development program addresses these difficulties, using the framework of career decision-making difficulties outlined by Gati et al. (1996).

As stated in prior chapters, much has been written on career education programs, but little has been written about the career decision difficulties perceived by career counselors and high school principals and practices used by high schools to enhance career development programs. Gati et al. (1996) made it clear that understanding students' decision difficulties prior to an intense decision-making process is vital to a successful career plan. Also, according to Gati et al., students who have a difficult time making career decisions will result in three things: (a) not beginning the career decision-making process, (b) halting the process before reaching a decision, or (c) making a nonoptimal decision.

Statement of the Purpose

The purpose of this comparative research study was to determine the perceptions of career counselors and principals on the types of career decision-making difficulties experienced by high school students and the extent to which a large-scale high school technology-based career development program addresses these difficulties, using the framework of career decision-making difficulties outlined by Gati et al. (1996). In particular, this study examined the perceptions of school counselors and principal on the severity of high school students' career decision-making process.

Research Questions

The following research questions were examined during this study:

1. To what degree do career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by Gati et al.'s (1996) taxonomy of difficulties in career decision making?
2. To what degree do career counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the K16 Bridge program using the EUREKA career development program?
3. Is there a significant difference in the degree career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by the Gati et al. (1996) taxonomy of difficulties in career decision making?

4. Is there a significant difference in the degree the counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the EUREKA career development program?

Population and Description of the Sample

The target population in this study included high school career counselors and principals in California who participate in the K16 Bridge program, within San Bernardino County. Although the major focus of this study was directed toward career counselors and school principals, the researcher added a third group on the survey, titled other. Other included participants who do not title themselves as a career counselor or principal but were still part of the sample population because they participated in the K16 Bridge program.

The sample for the survey included 24 high schools and five other schools to include an elementary and middle school, community college, university, and six San Bernardino County school representatives. The individuals included in the sample represented a cross-section of educational backgrounds and training in career education that are considered experts in their field. Prior to the survey, the researcher identified 122 participants who consisted of 76 counselors and 46 principals from the 24 high schools and the five other schools. According to Gay and Airasian (2006), a number of 122 identified participants should sample 92 and expect 60-70% return. Because of the small number identified by the researcher, the researcher sampled all 122 identified participants.

The goal of this study was to receive a minimum of 73 responses, which was 60% of the total surveys. There is no firm statistical bias for a 60% rule regarding the return rate, "but much like establishing the threshold for statistical significance at $P < .05$, the 60% response threshold is accepted" (Livingston & Wislar, 2012, p. 110). In this study, the researcher did not rely only on response rate on its own to make the research more appealing (Livingston & Wislar, 2012), but the researcher also relied on the fact that the participants are experts in their field.

Of the 122 individuals who were asked to participate in the survey, 108 surveys were returned. The breakdown is as follows: 68 out of the 76 counselors returned surveys, resulting in a return rate of 89% of the total surveys; 35 of the 46 principals returned surveys, resulting in a return rate of 76% of the total surveys. There were four other surveys returned from other participants, and one participant declined to take the survey, for a total of $N = 107$ returned surveys.

The number of counselors varied from school to school; some schools had one while other schools had eight counselors. The category, principals, included principals, vice/assistant principals, and K16 Bridge site coordinators. The researcher identified a minimum of two principals at each high school, with one high school having a designated site K16 Bridge coordinator. There were a total of 29 schools involved in this study.

To initiate the survey process, the researcher contacted the K16 Bridge program's KDMs, asking permission to conduct a survey with their career counselors and principals. Once permission was obtained, a consent form and survey link was e-mailed to each participant. The e-mail addresses were obtained from the KDM of all the participants

who attended the September 7, 2012, K16 Bridge conference. The researcher also attended a follow-up conference on January 9, 2013, with paper surveys to conclude the data collection process.

A one-way ANOVA test was used to determine if there were any differences in the perception of career counselors, high school principals, and other position titles on how well they perceive the EUREKA career development program addresses the 10 career decision difficulties identified by Gati et al. (1996) (Survey Question 8) and to what degree they perceive the difficulty types noted by Gati et al. to be present among their students served by the K16 Bridge program using the EUREKA career development program (Survey Question 7).

As a result of some of the participants not indicating that they were counselors or principals in the demographic questions of the survey, it was not possible to divide the participants into two groups, which would have allowed the use of a *t*-test for the comparison of means between two groups: principals and counselors (Research Questions 3 and 4). Instead, an ANOVA was used to compare the three groups of participants (counselors, principals, and others) on these means. A *t*-test was run, as an additional measure, just comparing the counselors and principals on the dependent variables for Research Questions 3 and 4; but this analysis did not provide a different outcome to the ANOVA comparing the three groups (counselors, principals, and others). Levene's test for equality of variance was included in the *t*-test analysis, but no significant differences were found between the groups, as per the analysis with the ANOVA.

Statistical significance was defined as having a significance level of less than .05. All 10 questions (a through j as shown in Appendix F) resulted in a significance level greater than .05, so it can be interpreted that the results among counselors, principals, and other titles have no significant differences in their responses, as illustrated in Appendix F.

Analysis of the Data

A revised expert questionnaire (Appendix B) design by Gati et al. (2010) was used for this research. Career counselors and principals responded to nine questions, divided into three sections. Section I, Questions 1 through 6 consisted of demographic questions. Section II, Question 7 asked the participants their perception of the presence of the 10 identified difficulties using a nine-point Likert agreement scale (1 = *not present at all* through 9 = *very present*). Section III, Questions 8 and 9 asked the participants their perception of the effectiveness of the EUREKA career education program in addressing the 10 identified difficulties.

In addition to the research questions, the researcher provided a matrix (Figure 2) to visualize whether the EUREKA career development program addressed the difficulties that are most in need of addressing (categories where difficulties are most present) and to see if there are any deficiencies in addressing difficulties that are perceived as highly present (categories assessed with a high presence but having low levels of effectiveness in addressing).

The data were analyzed using descriptive statistics (means, percentages, and so forth) using the statistical software Statistical Package for the Social Sciences (SPSS, version 14.0) and Microsoft Excel. Frequencies and percentages were computed for

demographic characteristics of the sample. Comparisons of the difference in the mean scores from Section II and Section III were made for each of the 10 identified difficulties using the ANOVA test. For Survey Question 9, the researcher categorized and themed the opened-ended responses to analyze what guided the participants rating during the survey. Table 1 provides an overview of the statistical tests used in answering each research question. These data are intended to help identify the characteristics of the participants who make decisions in career education.

Table 1

Statistical Testing Used to Answer Each Research Question

Research questions	Statistical test used
1. To what degree do career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by Gati et al.'s (1996) taxonomy of difficulties in career decision making? (Question 8)	• Mean • Standard deviation
2. To what degree do career counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the K16 Bridge program using the EUREKA career development program? (Question 7)	• Mean • Standard deviation
3. Is there a significant difference in the degree career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by the Gati et al. (1996) taxonomy of difficulties in career decision making? (Question 8 by position type and comparison of Questions 7 & 8)	• Mean comparisons: ANOVA test • Plot matrix
4. Is there a significant difference in the degree the career counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the EUREKA career development program? (Question 7 by position type and comparison of Questions 7 & 8)	• Mean comparisons: ANOVA test • Plot matrix

Demographic Information

The researcher established the sample population to be experts in their field through survey data describing the participant's current job title, highest level of education, and years of service in three categories in education (administration, counseling, and teaching). An expert is defined as "one who is expert, or has gained skill from experience; one whose special knowledge or skill cause him to be regarded as an authority; a specialist" (Expert, 2013). Gati et al.'s (2010) research states there is no substitute for expertise; an expert's judgments have been shown to be informative in the interpretation of their perceptions.

The majority (79.6%) of the participants in this study held at least a master's degree to include a P.P.S. credential and/or an administration certification; 48.1% of the participants had at least 1 year or more of experience as an principal; 66.7% of the participants had at least 1 year of career counseling experience; and 81.5% of the participants had at least 1 year of teaching experience. All the participants had at least 1 year of experience in education. These percentages represent the participant's entire education experience; some participants had years of experience in all three categories (administration, counseling, and teaching), while other participants had experience in one category. Nonetheless, all the participants had experience in education. From the demographic data, the researcher concluded that the participants are experts in education and their perceptions are insightful to add value to career education. Because this study focused on high school career education programs, the current employments of the participants who worked in high schools made up 87% of the sample.

Percentage of Response Return

Table 2 illustrates the percentage of responses from the total 122 expected participants; 107 participants filled out the survey and completed the demographic section, while one participant declined the survey ($N = 107$). This was a percentage response rate of 87.7%. According to Gay et al. (2006), a given population size (N) of 120 would survey 92 participants to limit bias at the 60% response rate.

Table 2

Sample Population Percentage Response Rate

Participants	Number	% of respondents
122	107	87.7%

Findings by Research Question

Research Question 1

1. To what degree do career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by Gati et al.'s (1996) taxonomy of difficulties in career decision making?

The data for Research Question 1 were analyzed using descriptive statistics, specifically means and standard deviations, to determine to what degree career counselors, principals, and other perceive the EUREKA career development program addresses the career decision-making difficulties as determined by Gati et al.'s (1996) taxonomy of difficulties in career decision making (Survey Question 8). A Likert scale was used, with options from *does not address* (1) to *strongly addresses* (9).

The analysis of the data in Table 3 illustrates the mean of each question in descending order, along with the standard deviation. The EUREKA career development program mean scores for all 10 difficulties ranged from 4.29 to 5.18, with an average across all items of 4.75. This indicates that principals, career counselors, and other perceived the EUREKA career development program only somewhat addresses career decision difficulties (the average score was just less than halfway between the lower and upper end of the nine-point scale); however, it does not strongly address them either.

Table 3

Ranked Assessments From Survey Question 8 in Descending Order

Extent to which the EUREKA career development program addresses the following difficulties in the career decision-making process		*N*	Mean	Standard deviation
Q8e	Lack of information about themselves	103	5.18	2.448
Q8f	Lack of information on the alternative occupations	101	5.15	2.463
Q8g	Lack of information on the sources to learn more	103	5.07	2.361
Q8d	Lack of information on the process	103	4.93	2.293
Q8h	Information is not trusted	101	4.79	2.342
Q8b	General indecisiveness	104	4.68	2.349
Q8c	Dysfunctional beliefs	103	4.59	2.294
Q8a	Lack of motivation	103	4.39	2.197
Q8i	Internal conflicts	102	4.37	2.184
Q8j	External conflicts	102	4.29	2.196

The difficulties which the program addresses to the greatest degree are lack of information about themselves (mean score of 5.18); lack of information on the alternative occupations (mean score of 5.15); and lack of information on the sources to learn more

(mean score of 5.07). Each of these three difficulties attained an average score that was closer to a level of *strongly address* than to a level of *does not address* (although all three were still just above the mid-point range of the scale). The difficulties that were rated as being the least addressed by the program were external conflicts (mean score of 4.29); internal conflicts (mean score of 4.37); and lack of motivation (mean score of 4.39).

Research Question 2

2. To what degree do career counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the K16 Bridge program using the EUREKA career development program?

To analyze the data for Research Questions 2, the analysis also included descriptive statistics, the means, and standard deviations to determine to what degree principals, career counselors, and other perceived the presence of difficulty in the 10 categories noted by Gati et al. (1996) to be present among students at the schools served by the K16 Bridge program using the EUREKA career development program (Survey Question 7). A Likert scale was used from *not present at all* (1) to *very present* (9).

The analysis of the data in Table 4 illustrates the mean of each question in descending order, along with the standard deviation. The analysis of the data demonstrated the mean score for presence of all 10 difficulties range from 5.54 to 6.75, with an average across all items of 6.28. This indicates that career counselors and principals perceived their students to have some difficulties with career decisions, with the average score falling closer to the level of *very present* than to a level of *not at all present*. The difficulties perceived to be most present are general indecisiveness (mean

score of 6.75); lack of information on the alternative occupations (mean score of 6.62); lack of motivation (mean score of 6.56); and lack of information on the process (mean score of 6.50). The two difficulties perceived to be least present among students are information is not trusted (mean score of 5.54) and internal conflicts (mean score of 5.90).

Table 4

Ranked Questions From Survey Question 7 in Descending Order

Extent to which the following difficulties are present among students in the career decision-making process		N	Mean	Standard deviation
Q7b	General indecisiveness	108	6.75	1.636
Q7f	Lack of information on the alternative occupations	107	6.62	1.741
Q7a	Lack of motivation	108	6.56	1.773
Q7d	Lack of information on the process	107	6.50	1.803
Q7e	Lack of information about themselves	107	6.36	1.910
Q7g	Lack of information on the sources to learn more	107	6.34	2.000
Q7j	External conflicts	108	6.14	1.911
Q7c	Dysfunctional beliefs	108	6.09	1.998
Q7i	Internal conflicts	108	5.90	1.933
Q7h	Information is not trusted	107	5.54	2.267

Research Question 3

3. Is there a significant difference in the degree career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by the Gati et al. (1996) taxonomy of difficulties in career decision making?

An ANOVA test was used to make a comparison of the mean scores between each group to determine whether the groups differed in their perceptions (Thorne & Giesen, 2003). The survey utilized a nine-point Likert scale with response options of *does not address* (1) to *strongly addresses* (9). Table 5 illustrates the mean scores for the 10 statements calculated by current job title and arranged in question order using the ANOVA test.

As Table 5 illustrates, the questions range on the Likert scale of 4.19 to 4.94 for principals, from 4.12 to 5.24 among counselors, and from 5.00 to 5.90 for other (participants with job titles other than administration or counselor). Principals perceived the EUREKA career development program most successfully addressing the lack of information about themselves (mean score of 4.94). This was followed closely by lack of information on the sources to learn more and lack of information on the alternative occupations (mean scores of 4.91 each). Principals were least likely to perceive the EUREKA program addresses the feeling that information is not trusted (mean score of 4.19). Counselors also perceived the EUREKA career development program most successfully addressing the lack of information about themselves (mean score of 5.24). This was followed at some distance by lack of information on the alternative occupations (mean score of 5.09). Counselors, however, felt that the difficulties least likely to be addressed by the EUREKA program were external conflicts and internal conflicts (mean scores of 4.12 and 4.19, respectively). As far as other (respondents) go, lack of information on the alternative occupations was rated highest for being addressed by the EUREKA program (mean score of 5.90). Other positions also felt that the program

addressed lack of information about themselves and lack of information on the process better than the other difficulties listed on the questionnaire (mean score of 5.82 each). Respondents from other positions were least likely to perceive the EUREKA program addressing lack of motivation (mean score of 5.00).

Table 5

ANOVA Comparison of the Mean Scores for Question 8 Among Each Current Job Title

Extent to which the EUREKA career development program addresses the following difficulties in the career decision-making process	Principal	Counselor	*Other	Significance level >.05
Q8a Lack of motivation	4.39	4.22	5.00	.562
Q8b General indecisiveness	4.67	4.58	5.45	.527
Q8c Dysfunctional beliefs	4.38	4.47	5.45	.369
Q8d Lack of information on the process	4.79	4.88	5.82	.412
Q8e Lack of information about themselves	4.94	5.24	5.82	.585
Q8f Lack of information on the alternative occupations	4.91	5.09	5.90	.534
Q8g Lack of information on the sources to learn more	4.91	4.98	5.64	658
Q8h Information is not trusted	4.19	4.95	5.36	.216
Q8i Internal conflicts	4.41	4.19	5.36	.267
Q8j External conflicts	4.24	4.12	5.20	.358

Note. *Other are participants who do not identify themselves as administer or counselor. The number of principals assessing the extent to which the EUREKA career development program addresses the 10 difficulties listed on the questionnaire varied between 32 and 33, depending on the question item; the number of counselors assessing the difficulties ranged from 57 to 59; the number of other positions assessing the difficulties varied between 10 and 11.

As far as comparisons of the differences among principals, counselors, and other position (respondents in a position not listed on the questionnaire), none of these

differences were statistically significant among the three groups for any of the difficulties listed on the questionnaire. Even when respondents in other positions were factored out of the comparisons, differences between the scores given by principals and counselors were not large enough to be statistically significant ($p < .05$).

Research Question 3 used the one-way ANOVA analysis comparing the mean scores to assess the extent to which the EUREKA program addressed the difficulties in the career decision-making process (Survey Question 8), and the results showed no significant difference among the three groups.

Research Question 4

4. Is there a significant difference in the degree the counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the EUREKA career development program?

Table 6 illustrates the comparison of the mean scores for each group, which were used to determine whether the groups differed (Thorne & Giesen, 2003). As Table 6 illustrates, the questions range on the Likert scale of 5.76 to 6.65 for principals, from 5.45 to 6.92 among counselors, and from 5.25 to 7.09 among those with job titles not listed on the questionnaire. Principals perceived lack of information on the process as the difficulty most present among students in the career decision-making process (mean score of 6.65). This was followed by lack of motivation and general indecisiveness (mean scores of 6.47 and 6.44, respectively). Principals were least likely to perceive information is not trusted as present among their students (mean score of 5.76).

Table 6

Comparison of the Mean Scores for Question 7 Among Each Job Type

Extent to which the following difficulties are present among students in the career decision-making process	Principal	Counselor	*Other	Significance level >.05
Q8a Lack of motivation	6.47	6.74	6.25	.597
Q8b General indecisiveness	6.44	6.92	6.58	.375
Q8c Dysfunctional beliefs	6.00	6.26	5.75	.656
Q8d Lack of information on the process	6.65	6.33	7.00	.444
Q8e Lack of information about themselves	6.29	6.33	6.75	.765
Q8f Lack of information on the alternative occupations	6.35	6.72	7.09	.407
Q8g Lack of information on the sources to learn more	6.35	6.26	6.82	.703
Q8h Information is not trusted	5.76	5.45	5.25	.738
Q8i Internal conflicts	5.91	5.97	5.92	.989
Q8j External conflicts	6.12	6.18	6.17	.988

Note. *Other are participants who do not identify themselves as administer or counselor. The number of principals assessing the extent to which the EUREKA career development program addresses the 10 difficulties listed on the questionnaire was 34; the number of counselors assessing the difficulties varied between 60 and 61 depending on the question item; the number of other positions assessing the difficulties varied between 11 and 12.

Counselors perceived general indecisiveness as the difficulty most present among their students (mean score of 6.92). This was followed at some distance by lack of motivation and lack of information on the alternative occupations (mean scores of 6.74 and 6.72, respectively). Counselors also perceived information is not trusted as the difficulty least likely to be present (mean score of 5.45). Respondents from other positions, however, perceived lack of information on the alternative occupations as the difficulty most present among their students (mean score of 7.09). Other positions also felt that lack of information on the process was more present among students than other

difficulties presented on the questionnaire (mean score of 7.00). Respondents from other positions were also least likely to perceive information is not trusted as present (mean score of 5.25).

The ANOVA test compared the differences in the mean scores among three groups to determine if there was a significant difference (Gay et al., 2006) in the extent to which career counselors and principals perceived difficulties to be present among students at the schools served by the K16 Bridge program using the EUREKA career development program. The results from the ANOVA test showed no significant differences among the three groups, as shown in Appendix G. Statistical significance was defined as having a significance level of less than .05. Even when respondents in other positions were factored out of the comparisons, differences between the scores given by principals and counselors were not large enough to be statistically significant ($p < .05$).

Research Question 4 used the one-way ANOVA analysis comparing the mean scores to assess the presence of difficulties among students (Survey Question 7), and the results showed no significant difference among the three groups.

Finally, as illustrated from the survey in Table 6, other respondents are more likely than principals or counselors to feel that lack of information on the process (7.00 to 6.65 and 6.33), about themselves (6.75 to 6.29 and 6.33), on alternative occupations (7.09 to 6.35 and 6.72), and on sources to learn more (6.82 to 6.35 and 6.26) are present among students in the career decision-making process. However, none of the differences among the groups for any of the difficulties are statistically significant.

In Section III of the modified expert questionnaire, the participants were asked to provide responses explaining the considerations that guided them in rating the presence of each difficulty. Of the 107 participants who took the survey, only 31 participants left short responses. Because the response rate was low, the researcher conducted informal observations through conversations at the January 9, 2013, K16 Bridge conference. These informal observations echoed what was reported on the survey. Qualitative data were used to find patterns and trends in the responses. The researcher made conclusions based on those comments. More than half of the responses mentioned available time, and less than a quarter of the responses referenced their own observations based on feedback from their students and their own experiences.

A majority of the responses (67.74%) concluded lack of time provided to their students was a consideration that guided their responses and based most of their ratings from their own personal perceptions of themselves going through the assessments during training. Responses included remarks such as "This is all great, but where do I have students do this? There's no time in their schedule" and "Having a counselor in the computer lab while students work on their plan would be helpful, but where do I find the time?" Therefore, the researcher concluded from these responses that lack of time was a main theme.

Fewer than a quarter of the responses (some 16%) included the following: "Observing what students are doing with EUREKA and conversations with these students led me to these ratings" and " Having completed the True Colors and Occu-Sort myself, I'm familiar with the content and used this information to . . . "; other comments left by

the participants were "experience with the kids," "student feedback," and "based ratings from my own experience."

Last, in order to determine whether the EUREKA career development program addresses the difficulties that are most in need of addressing (categories where difficulties are most present) and to see if there were deficiencies in addressing difficulties that are perceived as highly present (categories assessed with a high presence but having low levels of effectiveness in addressing), the researcher prepared an presence and effectiveness matrix (see Figure 2).

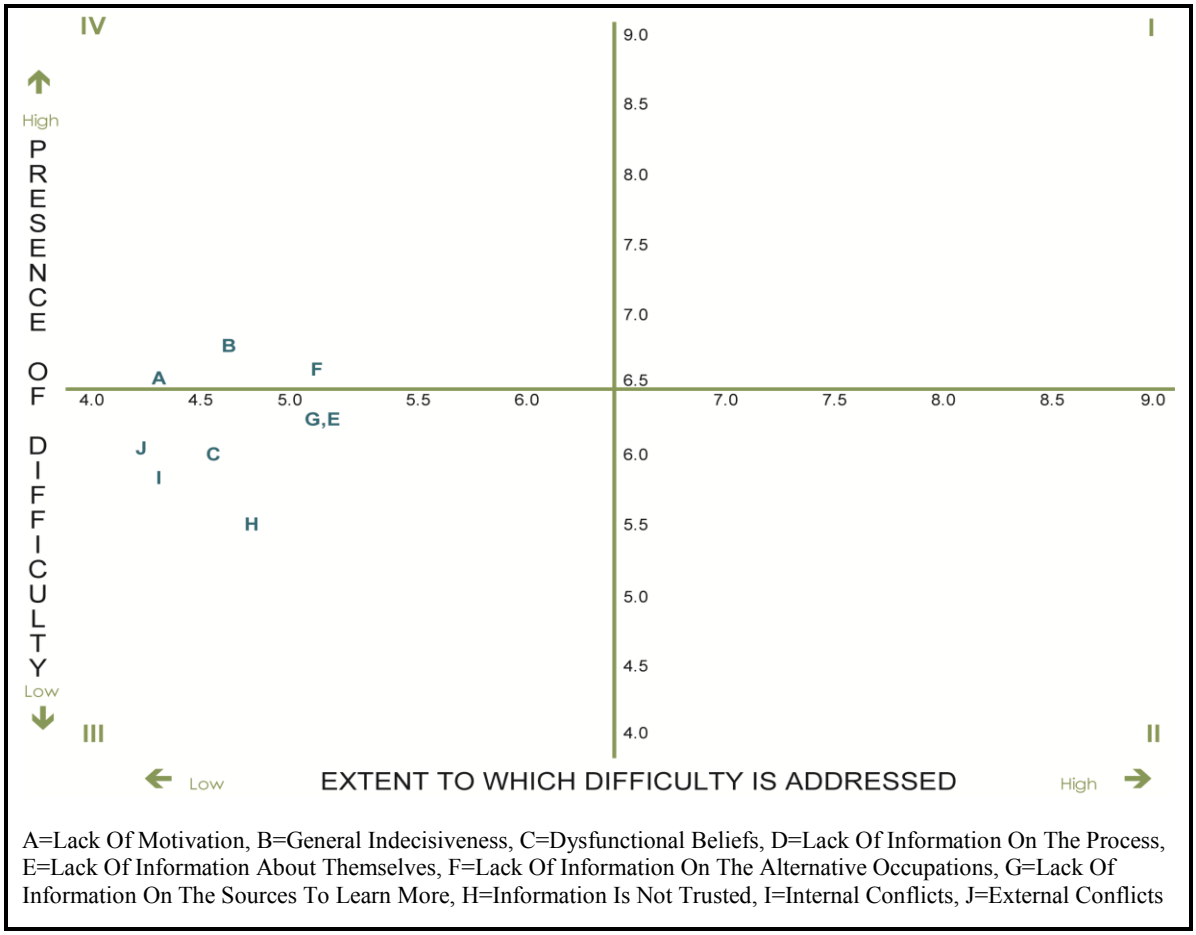

Figure 2. Matrix: EUREKA career development program addresses the difficulties that are most in need of addressing.

This matrix contains four quadrants that plotted each difficulty on a scale, which fell into the following classifications: Quadrant I: *highly present/strongly addressed*; Quadrant II: *not very present/strongly addressed*; Quadrant III: *not very present/not strongly addressed*; and Quadrant IV: *highly present/not strongly addressed*. By plotting out the difficulties on this matrix, categories that were viewed as highly present but indicated that the EUREKA career development program insufficiently addresses the career decision-making difficulties could be identified and discussed (those that fell into Quadrant IV). Difficulties in this quadrant include lack of motivation (A), general indecisiveness (B), and lack of information on the alternative occupations (F).

Summary of Findings

This study provided quantitative data on career counselors, high school principals, and other (respondents) regarding their perceptions on the types of career decision-making difficulties experienced by high school students. The data collection involved an online and paper survey with 68 career counselors, 35 high school principals, and 5 other participants who use the K16 Bridge program in their schools.

In conducting the data analysis, the researcher used descriptive and inferential statistical tests to answer the research questions. The findings were presented for each research question, and there were no statistically significant differences between the groups.

The following were important findings from this research:

1. Career counselors and principals perceived career decision-making difficulties exist within their students; but they also agreed the presence of their students' career

decision-making difficulties were somewhat present to cause high priority to address these difficulties, because 80% of the participants stated they lack time to address these difficulties.

2. Career counselors and principals perceived the EUREKA career program only somewhat addressed the career decision-making difficulties of their students. They also perceived the program did not address them enough to enforce good decision-making strategies.
3. Career counselors' and principals' overall perception of the effectiveness of the EUREKA career program in addressing student difficulties had no significant difference.
4. Career counselors' and principals' overall perception of their students with regard to presence of difficulties had no significant difference.
5. Difficulties perceived as being present in student decision making that are not adequately addressed by the EUREKA career program included lack of motivation, general indecisiveness, and lack of information on the alternative occupations. These three difficulties merit additional attention.

Chapter V presents the conclusions of the research and discusses recommendations for future research.

CHAPTER V

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

This chapter presents a summary of the study, including the purpose and important conclusions drawn from the data presented in Chapter IV. It provides an overview of the problem, statement of the purpose, summary of findings by research question results, review of the methodology, and major findings. The conclusion portion includes implications for action, recommendations for further research, and concluding remarks.

Summary of the Study

This study is important because too many students are leaving high school ill-prepared to transition into postsecondary education and the world of work. It was thought that career counseling was a one-time event. As information on career decision-making grew, researchers began to realize that the process was both complex and different for each individual (Coco, 2001). Because of the abundance of information available, students have a difficult time deciding what path they should follow for their optimal career choice. When students start a process involving multiple decisions and if they lack the ability to make decisions, this will typically result in three consequences: (a) not beginning the career decision-making process, (b) halting the process before reaching a decision, or (c) making a nonoptimal decision (Gati et al., 2010).

Principals and career counselors are KDMs for career education in their schools. Providing effective career education programs is an ongoing challenge (Patton, 2009), especially for these KDMs. Because the United States is in the process of adopting Common Core State Standards Initiative (CCSS) and California (in particular) is experiencing new budgets (decline in budget), these changes only increase the difficulty for KDMs to add to their already existing programs.

The new CCSS (2012) include preparedness for college and the world of work. These new CCSS have school principals and career counselors struggle with their allocation of resources to include, add, or continue a career education program to foster better decision-making skills among their students (Bangser, 2008). Principals are faced with decisions on how to structure interventions for their students in career decisions to promote successful transition from high school to postsecondary education or the world of work.

School budgets are facing difficult times, and schools are expected to prepare California students with the skills necessary for postsecondary education and the world of work. These decreasing budgets have put a lot of strain on principals. In particular, the AB 1802 Bill helped schools by providing funds to hire additional counselors to aid students in their career plan. After a few short years, the AB 1802 funds stopped, and many schools reported career counseling layoffs (California Association of School Counselors, Inc., 2012).

Purpose of the Study

The purpose of this comparative research study was to determine the perceptions of career counselors and principals on the types of career decision-making difficulties experienced by high school students and the extent to which a large-scale high school technology-based career development program addresses these difficulties, using the framework of career decision-making difficulties outlined by Gati et al. (1996). In particular, this study examined the perceptions of school counselors and principal on the severity of high school students' career decision-making process.

The sample population in this study included 122 career counselors and principals from 22 high schools in San Bernardino County, California, who participate in the K16 Bridge program. This study was conducted to assist career education programs to address the 10 identified career decision difficulties from Gati et al. (1996). The information in this study can be used to develop a solid foundation to help students make difficult decisions before starting an intense decision-making process. The researcher conducted this study in an effort to help career education programs to address the needs of students' career decision difficulties.

Research Questions

The study examined the following research questions:

1. To what degree do career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by Gati et al.'s (1996) taxonomy of difficulties in career decision making?

2. To what degree do career counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the K16 Bridge program using the EUREKA career development program?
3. Is there a significant difference in the degree career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by the Gati et al. (1996) taxonomy of difficulties in career decision making?
4. Is there a significant difference in the degree the counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the EUREKA career development program?

Methodology Summary

The researcher revised Gati et al.'s (2010) expert questionnaire into an online survey to include three sections: the demographics, the presence of difficulties, and the effectiveness of addressing these difficulties. To initiate the survey process, the researcher contacted the KDM and CEO of the K16 Bridge program asking permission to conduct a survey with the career counselors and principals who participated in this program. Once permission was obtained, a consent form and survey link was e-mailed to each participant; also, a generic link was placed on the K16 Bridge website and the researcher attended the January 9, 2013, conference to hand out paper surveys.

The sample for the survey included 24 high schools and five other schools to include one elementary school, one middle school, one community college, one university, and representatives from San Bernardino County of Education; the total

number of schools was 29. From the 29 schools, the researcher identified 122 participants that consisted of 76 counselors and 46 principals. Some participants reported to the researcher they did not receive an e-mail for the survey. Much of this confusion was because the e-mail was directed to the participants' SPAM folder. With the support of the CEO, the collection of surveys only took 3 weeks.

The participants filled out the demographic section of the survey so the researcher could identify them as experts in their field. The majority (79.6%) of the participants in this study held at least a master's degree to include a P.P.S. credential and/or an administration certification; 48.1% of the participants had at least 1 year or more of experience as an principal; 66.7% of the participants had at least 1 year of career counseling experience; and 81.5% of the participants had at least 1 year of teaching experience. All the participants had at least 1 year of experience in education. Because this study focused on high school career education programs, the current employments of the participants who worked in high schools made up 87% of the sample.

Findings of the Study

Roberts (2010) contended that an important goal in the final dissertation chapter is to provide suggestions about how the findings of a given study fit into the study area. Chapter II presented a literature review focused on career decision making. The studies and theories presented in the literature review serve as a point of comparison for the findings discussed in this section. The results of this study contribute to the literature about the effect of addressing career indecisiveness through a career education course. In

addition, the results demonstrate a parallel relationship with the major theories on career decision-making difficulties identified by Gati et al. (1996).

This study provided quantitative data regarding career counselors' and high school principals' perceptions of the quality an online career education program has on addressing students' career indecisiveness. For this study, the research questions served as a guide to determine if career counselors' and principals' perceptions of career indecisiveness are present among their students and if the K16 Bridge program addressed these difficulties. The researcher also wanted to determine if career counselors' and principals' perceptions are different.

The researcher concluded there was no statistically significant difference between how career counselors and principals perceived their students' career decisions-making difficulties. Both groups perceived the presence of their students' career decision-making difficulties are somewhat present and the career education program only somewhat addressed these difficulties. Particular to this study, the participants perceived the EUREKA career education program only somewhat addressed the career decision-making difficulties and the program does not address these difficulties enough to encourage good decision-making strategies among students.

Major Finding 1

To what degree do career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by Gati et al.'s (1996) taxonomy of difficulties in career decision making?

The participants reported the EUREKA career development program somewhat addressed career decision difficulties. The EUREKA program is an intense decision-making software program. For example, students take career assessments and choose from a list of careers from their test results. From the career list, students choose colleges offering majors to prepare them for their career. From the college list, students are given a list of high school courses to prepare them for their college. The entire EUREKA process demands students make choices. School counselors and principals perceived their students are partly overcoming decision-making barriers just by participating in the EUREKA program, but they also perceived the program does not directly address decision-making difficulties as outlined by Gati et al. (1996). The difficulties which the program addressed to the greatest degree are lack of information about themselves, lack of information on the alternative occupations, and lack of information on the sources to learn more.

The EUREKA program is designed for the students to first recognize their interests and personalities by taking the True Colors assessment. The True Colors is an insightful, fun, and easy-to-use assessment to align students' interest and personalities based on descriptive keywords that align to careers to match the students' interest and personalities (EUREKA, 2012). This is an example of why the perceptions of the participants ranked lack of information about themselves higher than the others difficulties; however, it was not ranked as strongly addressed either. From this study, the researcher concluded from informal conversations and the open-ended question on the survey that career counselors and principals perceived they lack the necessary time

needed for the students to explore their interests as deeply as they would like. Therefore, the researcher concluded time was a major factor that influenced why many of the participants ranked most of the 10 difficulties in the middle of the Likert scale on the survey. By no means is this a reflection of the EUREKA program but rather the structure of the participant's school and the time provided to their students to utilize provided information and resources.

The EUREKA program has been the "#1 system of choice by Californians for many years" (EUREKA, 2012). The program has over 800 careers listed in their database and are linked to career clusters that also list multiple alternative occupations in the specific cluster. Again, the participants ranked lack of information on the alternative occupations as being addressed but not strongly addressed. Again, the researcher concluded from the participants that it was not from the lack of information provided by the EUREKA program but rather on the quality of time and opportunities given to their students to utilize the information.

Major Finding 2

To what degree do career counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the K16 Bridge program using the EUREKA career development program?

The participants reported that their students have career decision-making difficulties but not high enough to be a major concern. Career counselors and principals perceived their students had some difficulties with career decisions. The difficulties perceived to be most present were general indecisiveness, lack of information on the

alternative occupations, lack of motivation, and lack of information on the process. Self-efficacy and career maturity defines the readiness of an individual to make informed, age-appropriate career decisions to overcome general indecisiveness; skills necessary to discover alternative occupations and increase motivation; and the ability to recognize the wealth of information available on their own (Savickas, 1999).

Self-efficacy theory pertains to beliefs about one's performance possibilities. For adolescents to perform successfully in a career education program and take it seriously, they need to have a positive attitude and high self-efficacy prior to starting (Bandura, 2006; Lent et al., 1999). When students lack self-confidence, they struggle to reach any decisions (Gati et al., 1996). Self-efficacy aids in the prediction of goal setting and implementation of a career plan among high school students (K. M. Taylor & Betz, 1983). Lent et al. (1991) further found that self-efficacy increases self-motivation and that self-efficacy is significantly related to academic performance and persistence to learn on one's own with the information provided.

Career maturity is a process that gives students the ability to make better and more informed career decisions while going through the process. When a student is indecisive, both the student's further job satisfaction and postsecondary education choices suffer. Career maturity is a student's ability to mature as he or she acquires knowledge and progresses from a young age into adulthood (Crites, 1965). Super (2003) elaborated upon career development and introduced the concept of career maturity into two dimensions: information and planning. The EUREKA program provides students with information to plan their future. In this study, principals and career counselors

recognized their students mature somewhat during the process, and they perceived that their students have some self-efficacy when they begin the career decision process.

Major Finding 3

Is there a significant difference in the degree career counselors and principals perceive the EUREKA career development program addresses the career decision-making difficulties as determined by the Gati et al. (1996) taxonomy of difficulties in career decision making?

Finding differences between principals and counselors, in this study, was difficult because there was no significant difference after running the ANOVA and *t*-test in the SPSS software. However, analyzing the comparison of means of principals, they were more likely than counselors to perceive that the program addressed lack of motivation, general indecisiveness, and internal and external conflicts. Counselors, on the other hand, were more likely than principals to perceive that the program addressed the remaining difficulties (per comparison of means).

It is meaningful that there were no significant differences between career counselors and principals, as it provides reassurance that the gap in their perceptions is minimal. This is important, because if the gap did exist, it would require intervention to get everyone on the same page. Both career counselors and principals perceive the EUREKA career development program addressed the career decision-making difficulties as determined by the Gati et al. (1996) taxonomy of difficulties in career decision making, but there is room to improve. Based on informal conversations and responses to open-ended questions, the researcher concluded that there was evidence that the survey

participants desire their students to be prepared for postsecondary education and the world of work.

Today's high school graduates must possess skills and knowledge to be prepared for the workforce and college (Patton, 2009; Williamson, 2006). Career development is vitally important for today's youth, who are more than ever "motivated but directionless" (Schneider & Stevenson, 1999). Many high school students are unable to understand their interests and abilities to identify different career opportunities and do not possess the necessary skills to explore the multiple opportunities available to them (Herr & Cramer, 1996). One of the opportunities available to high school students is to take appropriate courses to prepare them for their postsecondary goals. Students from the class of 2010 [national survey] said that based on what they know 1 year after high school, they wish they had chosen different courses in high school to better prepare them for careers and colleges of their choice (Hart Research Associates, 2011).

Taking appropriate courses in high school, prepares students academically and emotionally for their career of choice (Patton, 2009). In addition, most high school educators would agree their purpose is to prepare students for postsecondary education and the world of work (D. Brown, 2003; Savickas, 1999). The researcher examined more in depth and concluded that principals would like to provide more opportunities to their students in preparation for life after high school and counselors would like to have more time with their students to assure their students have the ability to make sound decisions (and take full advantage of their opportunities) before leaving high school.

Major Finding 4

Is there a significant difference in the degree the counselors and principals perceive the difficulty types noted by Gati et al. (1996) to be present among students at the schools served by the EUREKA career development program?

Again, the researcher found no significant differences between how the participants perceived the presence of difficulty types noted by Gati et al. (1996) among their students. Principals and counselors both agreed their students have career decision-making difficulties. According to the literature and data provided in this study, the presence of career decision difficulties result in students not making optimal decisions for postsecondary education and the world of work.

According to the National Center for Education Statistics, between 30% and 40% of incoming college freshman are unsure of a major, and an estimated 75% to 80% of students change their majors (Walsh & Osipow, 1988; University of Missouri—St. Louis Office of Admissions, 2006). The result of indecision and change of majors results in a first-year (college) dropout rate of more than 45% at 4-year institutions and approximately 35% at 2-year institutions (ACT, 2011). As for the workplace, the quality of the career decisions made during the transition from education to occupation is significant, too, for both the individual and society (Camp, 2000). Studies have indicated that decreasing career education programs have negatively affected the workplace in areas such as absenteeism, poor worker motivation, poor workmanship, and high turnover rates (Walsh & Osipow, 1988).

As the data demonstrate, a high percentage of students are not prepared to make choices when choosing a college major; and this study mirrors these data by showing principals and counselors perceived students lack the skills to make informed decisions in all 10 identified difficulties outlined by Gati et al. (1996). According to the literature and this study, even though principals and career counselors perceive indecisiveness among their students, schools are continuing to increase academic courses and decrease elective courses that include career education. Students are missing out on how to set goals for their future (Austin & Cilliers, 2011; Peng & Herr, 1999). According to the literature, career education is decreasing in high schools and in colleges. Also according to the literature, most career education courses are not introduced to students until they enroll in college. As mentioned in Chapter II, colleges only reach five out of 20 students who originally attended kindergarten, thus only reaching 25% of all students. This study supports the contention that high school principals and counselors perceive career decision-making difficulties are present among their students; but more alarming, the participants in this study perceived these difficulties are not such a high priority to address.

Important Findings

The following were important finding from this research:

1. The participants in this research perceived their students have career decision-making difficulties as determined by Gati et al.'s (1996) taxonomy prior to and during a career education program. They perceived their students indirectly overcome some decision-making difficulties just by experiencing the decision-making process. Therefore, the

participants perceived the EUREKA program somewhat directly addresses decision-making difficulties.

2. The participants in this research perceived the presence of career decision-making difficulties existed within their students. They also agreed the presence of their students' career decision-making difficulties were not significant enough to cause high priority in addressing these difficulties, because 80% of the participants stated they lack time to address these difficulties.
3. The participants' overall perceptions of the effectiveness of the EUREKA career program in addressing student career decision difficulties were the same among the principals and counselors. Both groups wanted their students to be prepared for postsecondary opportunities. Both groups agreed their students have career decision-making difficulties; however, they perceived these difficulties were not noticeable enough to cause a high priority to address them, again because 80% of the participants stated they lack time to address these difficulties.
4. Career counselors' and principals' overall perceptions of their students in regard to presence of difficulties were the same. Difficulties that were perceived as being present in student decision making that are not adequately being addressed by the EUREKA career program include lack of motivation, general indecisiveness, and lack of information on the alternative occupations. These three difficulties merit additional attention as far as the program is concerned.

Implications

Having reached the conclusion that there was no significant difference between career counselors' and high school principals' perceptions of their students' career decision-making difficulties and that the EUREKA program only addresses these difficulties to some degree begs the question, "So what?" According to this study and the literature on career education (ACT, 2010a, 2010b; Amir et al., 2008; Bailey et al. 1992; Bandura & Barbaranelli, 1996; D. Brown & Brooks, 1990; Feller, 1996, 2011; Gati et al., 1996, 2010; Osipow & Fitzgerald, 1996; Patton, 2009; Savickas, 1999; Super, 2003), exposure to any career education program improves career decision-making skills.

Principals, who are KDMs for their schools, are finding it difficult to find time to allocate career education for their students. They are challenged with implementing new Common Core Standards and dealing with decreasing school budgets. Career counselors are also finding it difficult to allocate time and resources to career education when they are addressing other complicated issues, such as drug and alcohol groups, anger management groups, character lessons, and tolerance workshops (to name only a few). So what are the real-world applications of this conclusion? What recommendations for action can be made?

1. The results of this study demonstrate principals, career counselors, and other participants viewed career decision difficulties exist in their students, and they also viewed the K16 Bridge program addressed these difficulties. According to the literature and this study, a smooth transition into postsecondary education or the world of work is easier when students are able to make sound decisions to create a path for

their future. Common Core Standards has included career education in the English and math standards. It is important for principals to encourage their teachers to address these standards throughout the school year and in each grade level. It is also important for career counselors to collaborate with teachers to be part of the career education standards to provide their expert knowledge regarding career planning.

2. The participants in this study responded that the K16 Bridge program was important and students should be exposed to a career education program. Even though the participants responded favorably to the K16 Bridge program, more effort is needed by the principals and counselors to allocate the time needed for students to take full advantage of all the resources available to them.
3. The participants in this study perceived they do not have enough time to provide a career education program to their students. Exploring career interest and choices is more important to students today, especially incoming freshmen, because these freshmen have to choose courses to prepare them for postsecondary education and the world of work. As stated earlier, school systems are requiring ninth-grade students to make specific educational choices at the beginning of their high school career. Decisions concerning diploma types, 4-year academic plans, math and science tracks, and course levels have definite implications for career preparation and commitment (Savickas, 1999; Williamson, 2006). Therefore, students need to be exposed to a program that challenges them to make decisions as part of the curriculum to develop good decision-making strategies.

4. The perceptions of the participants in this study perceived that the focus on the psychological component of career counseling is minimal. According to Walsh and Osipow (1988) research needs to be refocused to include how career counselors perceive career education and how the students process the information in a career education program. Much of the research, particularly earlier studies, seemed to focus on how career counselors delivered the program. A career education program is clearly more than instruction and information. Because career education has gained new interests through the Common Core Standards, the states are relying on teachers to deliver career planning information. Career counselors and principals, from this study, perceived expert career counseling is needed to include the psychological interaction among their students.
5. The participants in this study perceived the time needed to offer a complete career education program is difficult. Schools have been reducing, if not eliminating, career education programs (Bailey et al., 1992; D. Brown & Brooks, 1990) due to declining budgets and education reform. Public schools focus on standards-based curriculum to increase rigor and accountability (Gray, 2002). There are many articles and research about how career education is beneficial to high school students. However, high school students are not given the time needed to go through an online education program, and students are not prepared to effectively deal with career decisions (Williamson, 2006).
6. Implementing the CDDQ prior to starting the Eureka career education program to identify the severity of career decision-making difficulties should increase students'

success to finish a career education program and make optimal choices for their future. The CDDQ is an initial screening tool used to identify the severity of any of the 10 career decision-making difficulties and to direct students to relevant intervention options such as face-to-face counseling to help guide students through an education program to include multiple choices.

Conclusions

This study relied on Gati et al.'s (1996) taxonomy of career decision-making difficulties. This study distinguished between the presence of difficulties among their students and if an online career education program addressed these difficulties. The goal was to examine the theoretical importance of distinguishing between the 10 identified difficulties and to empirically compare these difficulties to see if they are being addressed among high school students. The outcome of the data showed each difficulty was present but being addressed through an online career education program, though not as well as most counselors and principals would like. Discovering that there is no significant difference between the perceptions of career counselors and principals is a major contribution to education.

Showing no significant difference between the groups in this study is meaningful because it provides reassurance that the gap in their perceptions is minimal. This is important, because if the gap did exist, it would require intervention to get everyone on the same page. Principals and career counselors are under a lot of pressure today, as education is changing. This study's indications showed that both groups supported a

comprehensive career education program, as well as supporting students through a process to overcome career indecisiveness.

The results also support the fact that school counselors' and principals' perceptions of career education is a continual process involving internal and external influences among their students. This study was conducted to provide school counselors and principals with information in regard to their perceptions of how a career education program affects their students' ability to make good decisions.

Recommendations for Future Research

This study was limited in that the researcher's sample population was limited to career counselors and principals who use the K16 Bridge program, which encompasses the EUREKA career education program. Because of the limited population, further research should consider career counselors participating in other career education programs.

Future research should focus on the factors that affect the overall opportunities a career education program offers students. The participants in this research do not treat the EUREKA career education program equally. For example, some of the schools offer an intense semester-long career program utilizing all the tools, while other schools, in the K16 Bridge program, do not offer any career education or tools to their students. Therefore, this could have skewed the perceptions of the career counselors and principals from school to school.

Another future research idea would be to examine the perceptions of career counselors and principals and compare those perceptions against their actual student

scores from the CDDQ. Future research could confirm whether expert counselors' and principals' perceptions are accurate in regard to their students' actual career decision difficulties. Future research might highlight additional facets of awareness in education and should be considered by both the principal and career counselor to improve career education.

In addition to the students' and parents' perceptions, it would be valuable to compare the presence of the 10 career decision-making difficulties among students, their parents, career counselors, and principals. It would be interesting to see if the students and parents perceive greater career decision-making difficulties than the counselors and principals.

Concluding Remarks

Students face great challenges in choosing high school courses, let alone a path after high school to prepare them for postsecondary education and the world of work (Ireh, 1999). Career decision-making difficulty is an important factor to consider when students begin a career education program (Gati et al., 2010). It is important to the education community to understand the difficulties students encounter when making career decisions. Sometimes these decisions affect a student's life for years to come (Ireh, 1999). Principals and career counselors need to recognize these difficulties to provide opportunities for students to avoid negative consequences, such as taking inappropriate courses or being ill-prepared for college or the workplace. Addressing career indecision will help students begin a career plan, continue with a career plan, and make optimal decisions for future success.

It is important for school principals and counselors to realize that their perceptions are accurate in regard to career decision theory, suggesting students lack the skills needed to make good decisions, and little is done to address these decision-making difficulties. There is much research on career education programs, but little research has been conducted on career counselors' and principals' perceptions regarding career decision difficulties among high school students. Literature frequently references various career education programs; however, there are few empirical studies to support the idea students need to address their decision difficulties before starting a program requiring students to make multiple decisions.

In this study, principals and career counselors acknowledged the presence of career decision-making difficulties that exist among their students, and they perceived this warrants only some necessity to address these difficulties. The major objective of this study was to improve awareness of career counselors' and principals' perceptions of their students' career decision-making skills. It may be concluded from the evidence obtained in the analysis of the data that the K16 Bridge program is an effective program that does address the career decision difficulties, but it has room to improve.

Career education is in a precarious time. In the past, career education has been a huge part of various CTE courses and their curriculums. According to the literature, declining budgets has resulted in declining CTE courses. The new Common Core Standards have included career education in the English and math standards and rely on teachers to distribute career information. The CCSS Initiative (2012) motto is "Preparing America's Students for College & Career." Many educators are unsure on how to

implement a good career education program (to meet these new standards), and the teachers who are responsible to teach these new standards are not trained in psychotherapy to deal with students who may suffer internal conflicts about making decisions.

In addition, it is difficult for schools to implement or even continue an already existing career education program in their schools. It is even harder to include an added layer of career indecisiveness. Education needs to be willing to work beyond limited budgets and downsizing to prepare students for their future. When principals and career counselors offer career education opportunities to their students, they will increase their students' ability to be prepared for their future goals and to be productive citizens.

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APPENDICES

APPENDIX A

CONSENT TO USE K16 BRIDGE CAREER COUNSELORS AND ADMINISTRATORS

Lewis Center for Educational Research
Academy for Academic Excellence
Norton Space and Aeronautics Academy
Mailing Address:
17500 Mana Road
Apple Valley, CA 92307-2181
www.lewiscenter.org
760-946-5414 Fax 760-242-3783

K16Bridge program

Lewis Center for Educational Research

November 01, 2012

Mr. Chris Piercy
9292 Sheep Creek Rd.
Phelan, CA 92371

Kellie Williams
9545 SVL Box
Victorville, CA 92395

Dear Mrs. Williams:

I have reviewed your request to conduct a research project involving the K16 Bridge career counselors and principals and the survey material that will be used. I feel that this project will be beneficial to the K16 Bridge program and in particular the Eureka career education unit. You have my permission to use the K16 Bridge participants as the subject pool for this project. If you have any questions regarding this letter of approval, please give me a call.

Sincerely,

Mr. Chris Piercy
Director of the K16 Bridge Program
The Lewis Center for Educational Research

APPENDIX B

EXPERT QUESTIONNAIRE

Expert Questionnaire

The perceptions of career counselors and principals on the types of career decision making difficulties experienced by high school students.

Section I - Demographics

1. **What is your gender:** ❒1 Male ❒2 Female

2. **What is your age?**
   ❒1 18-30 ❒2 31-40 ❒3 41-50 ❒4 >50

3. **What was the highest level of education and certifications you achieved?**

   ❒1 Bachelors ❒2 Masters ❒3 Credential (Teaching - P.P.S. - Administration)

   ❒4 Doctorate ❒5 Other (Please Specify: _____)

4. **What is your current employment level of education?**

   ❒1 Middle School ❒2 High School ❒3 College ❒4 Other (Please Specify: _____)

5. **What is your current job title?**

   ❒1 Administrator ❒2 Counselor ❒3 Other (Please Specify: _____)

6. **How many years have you served in each of the following positions?** Check all that apply.

   ❒1 Administrator → ❒1 0 years ❒2 1-5years ❒3 6-10 years ❒4 11-15 years ❒5 >16 years

   ❒2 Counselor → ❒1 0 years ❒2 1-5years ❒3 6-10 years ❒4 11-15 years ❒5 >16 years

   ❒3 Teacher → ❒1 0 years ❒2 1-5years ❒3 6-10 years ❒4 11-15 years ❒5 >16 years

Section II – Presence of Difficulties

7. **Please rate the extent to which each of the following difficulties are present among your students in the career decision-making process.**

*Category	Not Present At All								Very Present
Lack of motivation	1	2	3	4	5	6	7	8	9
General indecisiveness	1	2	3	4	5	6	7	8	9
Dysfunctional beliefs	1	2	3	4	5	6	7	8	9
Lack of information on the process	1	2	3	4	5	6	7	8	9
Lack of information about themselves	1	2	3	4	5	6	7	8	9
Lack of information on the alternative occupations	1	2	3	4	5	6	7	8	9
Lack of information on the sources to learn more	1	2	3	4	5	6	7	8	9
Information is not trusted	1	2	3	4	5	6	7	8	9
Internal conflicts	1	2	3	4	5	6	7	8	9
External conflicts	1	2	3	4	5	6	7	8	9

Section III – Effectiveness of Addressing Difficulties

* Itamar Gati, Tamar Amir and Shiri Landman, 2009. Modified Experts' Questionnaire.

8. **Please rate the extent to which the Eureka career development program addresses each of the following difficulties in the career decision-making process.**

*Category	Does Not Address								Strongly Address
Lack of motivation	1	2	3	4	5	6	7	8	9
General indecisiveness	1	2	3	4	5	6	7	8	9
Dysfunctional beliefs	1	2	3	4	5	6	7	8	9
Lack of information on the process	1	2	3	4	5	6	7	8	9
Lack of information about themselves	1	2	3	4	5	6	7	8	9
Lack of information on the alternative occupations	1	2	3	4	5	6	7	8	9
Lack of information on the sources to learn more	1	2	3	4	5	6	7	8	9
Information is not trusted	1	2	3	4	5	6	7	8	9
Internal conflicts	1	2	3	4	5	6	7	8	9
External conflicts	1	2	3	4	5	6	7	8	9

9. **Please explain the considerations that guided you in rating the presence of each difficulty.**

_____

_____

_____

_____

_____

_____

_____

_____

* Itamar Gati, Tamar Amir and Shiri Landman, 2009. Modified Experts' Questionnaire.

APPENDIX C

PERMISSION FROM GATI TO USE EXPERT QUESTIONNAIRE

Gmail by Google

Kellie Williams <k1234williams@gmail.com>

Permission to use your Expert Questionnaire - Kellie Williams

3 messages

Kellie Wiliams <k1234williams@gmail.com> Sat, Dec 1, 2012 at 9:04 AM
To: Itamar Gati <itamar.gati@mail.huji.ac.il>

Hello Dr. Gati, my name is Kellie Williams and we have exchanged a few emails during the summer months regarding your Expert Questionnaire on perceptions from career counselors. You have already emailed me the questionnaire to use and I revised the questionnaire to focus on my research questions. Now I'm in the I.R.B. process for my dissertation. I need an email from you stating it's okay to use your Expert Questionnaire for my dissertation. I've attached a revised copy to address my research questions. Please reply to this email if you grant me permission. Thank you for your support.

Kellie Williams
k1234williams@gmail.com

Expert Questionnaire.Williams10.23.12 (from Kellie-pc).doc
63K

Itamar Gati <itamar.gati@mail.huji.ac.il> Sat, Dec 1, 2012 at 9:54 PM
To: Kellie Wiliams <k1234williams@gmail.com>

Dear Kellie,

I approve your use of the revised version of our Expert Questionnaire for your dissertation.

Itamar Gati

****
Itamar Gati, Ph.D.
Samuel and Esther Melton Professor
Depts. of Education and Psychology
Hebrew University, Jerusalem 91905, ISRAEL
tel: +972-2-5882170 fax: +972-2-5882084
itamar.gati@huji.ac.il
www.cddq.org www.kivunim.com/gati
****

From: Kellie Wiliams [mailto:k1234williams@gmail.com]
Sent: Saturday, December 01, 2012 7:04 PM
To: Itamar Gati
Subject: Permission to use your Expert Questionnaire - Kellie Williams

APPENDIX D

IRB APPROVAL

University of La Verne
Institutional Review Board

TO: Kellie Williams, Doctor of Education Candidate

FROM: University of La Verne, Institutional Review Board

RE: **2012-CEOL-70-Williams- The perceptions of career counselors and principals on the types of career decision making difficulties experienced by high school students**

The research project, cited above, was reviewed by the College of Education and Organizational IRB Committee. The college review determined that the research activity has minimal risk to human participants, and the application received an Expedited review. The application was approved with no additional conditions.

A copy of this approval letter is required to be included as an appendix to your completed dissertation. The project may proceed to completion, or until the **date of expiration of IRB approval, December 10, 2013.** Please note the following conditions applied to all IRB submissions:

No new participants may be enrolled beyond the expiration date without IRB approval of an extension.

The IRB expects to receive notification of the completion of this project, or a request for extension within two weeks of the approval expiration date, whichever date comes earlier.

The IRB expects to receive prompt notice of any proposed changes to the protocol, informed consent forms, or participant recruitment materials. No additional participants may be enrolled in the research without approval of the amended items.

The IRB expects to receive prompt notice of any adverse event involving human participants in this research.

There are no further conditions placed on this approval.

The IRB wishes to extend to you its best wishes for a successful research endeavor. If you have any questions, please do not hesitate to contact me.

Approval Signature | Marcia L. Godwin, Ph.D., IRB Director/Chair | December 10, 2012, Date

For the Protection of Human Participants in Research
mgodwin@laverne.edu
(909) 593-3511, ext. 4103

University of La Verne
Institutional Review Board

TO: Kellie Williams, Doctor of Education Program

FROM: University of La Verne, Institutional Review Board

RE: **Amendment, 2012-CEOL-70-Williams, The perceptions of career counselors and principals on the types of career decision making difficulties experienced by high school students**

The amendment to the research project, cited above, was reviewed by the IRB Director/Chair. It was determined that the research activity in its amended form will not impact the level of risk to participants. Approval is extended to the request to include the name of the participating organization in your study, with the permission of the organization.

The project may proceed to completion, or until the **original date of expiration of IRB approval, December 10, 2013.** Please note the following conditions applied to all IRB submissions:

No new participants may be enrolled beyond the expiration date without IRB approval of an extension.

The IRB expects to receive notification of the completion of this project, or a request for extension within two weeks of the approval expiration date, whichever date comes earlier.

The IRB expects to receive prompt notice of any proposed changes to the protocol, informed consent forms, or participant recruitment materials. No additional participants may be enrolled in the research without approval of the amended items.

The IRB expects to receive prompt notice of any adverse event involving human participants in this research.

There are no further conditions placed on this approval.

The IRB wishes to extend to you its best wishes for a successful research endeavor. If you have any questions, please do not hesitate to contact me.

Marcia Godwin — Marcia Godwin, Ph.D. — March 6, 2013
Approval Signature — IRB Director/Chair — Date

For the Protection of Human Participants in Research
mgodwin@laverne.edu
(909) 593-3511, ext. 4103

APPENDIX E

CONSENT TO PARTICIPATE

CONSENT TO PARTICIPATE IN RESEARCH

The perceptions of career counselors and principals on the types of career decision making difficulties experienced by high school students.

You are being asked to participate in a research study conducted by Kellie Williams, a student in the University of La Verne Doctoral Program in Organizational Leadership. The results of this study will be used for a dissertation research project. You were selected as a possible participant in this study because you participate in the K16 Bridge Program. More than 80 participants are expected.

PURPOSE OF THE STUDY

The purpose of this study is to explore the perceptions of career counselors and principals on the types of career decision making difficulties experienced by high school students and the extent to which a large scale high school technology-based career development program addresses these difficulties, using the framework of career decision making difficulties outlined by Gati (1996).

PROCEDURES

If you decide to participate in this study, we will ask you to do the following things:

1. Answer brief demographic questions (general questions that cannot be used to identify you).
2. Complete a brief survey regarding the types of career decision making difficulties encountered by your students and the extent to which these difficulties are addressed in your program. This should take less than 10 minutes.
3. Be honest and truthful, the answers are your opinions and perceptions
4. Please don't talk to other participants to influence or persuade their views.

POTENTIAL RISKS AND DISCOMFORTS

You should expect minimal discomfort in answering the questions, as they are not personal. If you should feel any discomfort please do not continue completing the survey and notify the researcher.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR SOCIETY

The benefit of this survey is to improve blended career development education, specifically the K16 Bridge program. There is no direct benefit to participants.

PAYMENT FOR PARTICIPATION

No payment will be made to participants.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. All data collected will be confidential and will be kept in a secure location.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study.

RIGHTS OF RESEARCH PARTICIPANT

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, contact Marcia L. Godwin, Ph.D., IRB Director, at 909-593-3511, extension 4103, and (mgodwin@laverne.edu). University of La Verne, Institutional Review Board, 1950 Third Street, CBPM 123, La Verne, CA 91750.

IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact the following:

Researcher: Kellie Williams

760-887-0812
k1234williams@gmail.com
9545 SVL Box, Victorville, CA 92395

Faculty Supervisor, Dr. Doug DeVore
ddevore@laverne.edu

I understand the procedures described above. I am at least 18 years old. My questions have been answered to my satisfaction, and I agree to participate in this study.

By completing this survey you agree to the above.

Sign Date

APPENDIX F

ANOVA TABLE FOR SURVEY QUESTION 8

Table F1

ANOVA Table for Survey Question 8

			Sum of squares	df	Mean square	F	Sig.
Q8a Please rate the extent to which the Eureka career development program addresses lack of motivation in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	5.613	2	2.807	0.579	0.562
	Within groups		479.965	99	4.848		
	Total		485.578	101			
Q8b Please rate the extent to which the Eureka career development program addresses general indecisiveness in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	7.203	2	3.601	0.645	0.527
	Within groups		558.467	100	5.585		
	Total		565.670	102			
Q8c Please rate the extent to which the Eureka career development program addresses dysfunctional beliefs in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	10.316	2	5.158	1.007	0.369
	Within groups		506.939	99	5.121		
	Total		517.255	101			
Q8d Please rate the extent to which the Eureka career development program addresses lack of information on the process in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	9.448	2	4.724	0.894	0.412
	Within groups		523.307	99	5.286		
	Total		532.755	101			
Q8e Please rate the extent to which the Eureka career development program addresses lack of information about themselves in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	6.541	2	3.270	0.539	0.585
	Within groups		600.136	99	6.062		
	Total		606.676	101			

Table F1 (*continued*)

			Sum of squares	df	Mean square	F	Sig.
Q8f Please rate the extent to which the Eureka career development program addresses lack of information on the alternative occupations in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	7.602	2	3.801	0.631	0.534
	Within groups		584.188	97	6.023		
	Total		591.790	99			
Q8g Please rate the extent to which the Eureka career development program addresses lack of information on the sources to learn more in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	4.656	2	2.328	0.420	0.658
	Within groups		548.255	99	5.538		
	Total		552.912	101			
Q8h Please rate the extent to which the Eureka career development program addresses information is not trusted in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	16.487	2	8.244	1.555	0.216
	Within groups		514.263	97	5.302		
	Total		530.750	99			
Q8i Please rate the extent to which the Eureka career development program addresses internal conflicts in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	12.763	2	6.381	1.339	0.267
	Within groups		467.178	98	4.767		
	Total		479.941	100			
Q8j Please rate the extent to which the Eureka career development program addresses external conflicts in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	9.966	2	4.983	1.039	0.358
	Within groups		469.816	98	4.794		
	Total		479.782	100			

APPENDIX G

ANOVA TABLE FOR SURVEY QUESTION 7

Table G1

ANOVA Table for Survey Question 7

			Sum of squares	df	Mean square	F	Sig.
Q7a Please rate the extent to which lack of motivation is present among your students in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	3.196	2	1.598	0.518	0.597
	Within groups		320.524	104	3.082		
	Total		323.720	106			
Q7b Please rate the extent to which general indecisiveness is present among your students in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	5.251	2	2.626	0.990	0.375
	Within groups		275.889	104	2.653		
	Total		281.140	106			
Q7c Please rate the extent to which dysfunctional beliefs is present among your students in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	3.367	2	1.684	0.423	0.656
	Within groups		414.053	104	3.981		
	Total		417.421	106			
Q7d Please rate the extent to which lack of information on the process is present among your students in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	5.393	2	2.696	0.819	0.444
	Within groups		339.098	103	3.292		
	Total		344.491	105			
Q7e Please rate the extent to which lack of information about themselves is present among your students in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	2.009	2	1.004	0.269	0.765
	Within groups		384.642	103	3.734		
	Total		386.651	105			
Q7f Please rate the extent to which lack of information on the alternative occupations is present among your students in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	5.441	2	2.721	0.907	0.407
	Within groups		308.936	103	2.999		
	Total		314.377	105			

Table G1 (*continued*)

			Sum of squares	df	Mean square	F	Sig.
Q7g Please rate the extent to which lack of information on the sources to learn more is present among your students in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	2.881	2	1.440	0.354	0.703
	Within groups		419.204	103	4.070		
	Total		422.085	105			
Q7h Please rate the extent to which information is not trusted is present among your students in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	3.197	2	1.599	0.305	0.738
	Within groups		539.218	103	5.235		
	Total		542.415	105			
Q7i Please rate the extent to which internal conflicts is present among your students in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	0.077	2	0.039	0.011	0.989
	Within groups		375.586	104	3.611		
	Total		375.664	106			
Q7j Please rate the extent to which external conflicts is present among your students in the career decision-making process. * Q5 What is your current job title?	Between groups	(Combined)	0.087	2	0.043	0.012	0.988
	Within groups		386.212	104	3.714		
	Total		386.299	106			