PERCEPTIONS OF COMMUNITY COLLEGES HELD BY HIGH SCHOOL COUNSELORS:
A Q METHODOLOGY EXAMINATION

by

James R. McCoy

This dissertation is submitted in partial fulfillment of the
requirements for the degree of

Doctor of Education

Ferris State University

December 2021

PERCEPTIONS OF COMMUNITY COLLEGES HELD BY HIGH SCHOOL COUNSELORS:
A Q METHODOLOGY EXAMINATION

by

James R. McCoy

Has been approved

December 2021

APPROVED:

Lee Ann Nutt, EdD
Committee Chair

James E. Bartlett, PhD
Committee Member

Hyla Winters, PhD
Committee Member

Dissertation Committee

ACCEPTED:

Sandra J Balkema, PhD, Dissertation Director
Community College Leadership Program

ABSTRACT

High school counselors have influence on the college choice decisions made by high school students. As such, if the idea of attending a community college is going to be shared as a quality option for high school students, we must understand how high school counselors perceive community colleges.

The purpose of this study was to examine the perceptions of community colleges that are held by high school counselors from the Clark County School District, a large urban school district located in Southern Nevada. Theoretically grounded in Human Perception Theory, the research design for this study was built using the Q method, a qualitative and quantitative methodology designed to determine perspectives from a given sample on a specific topic. A robust concourse of perception statements about community colleges was generated from the literature and then reduced into a thematic representation of perceptions (Q-set). The participants sorted each perception statement through a forced distribution based on their level of agreement or disagreement. Following the participant's sort, a quantitative analysis was conducted to include correlations, factor analysis, and factor scores. A post-sort survey was completed by the participants to garner qualitative data to better understand the participants' reasons behind their respective sorts, as well as to gather some demographic information.

Four factors (groups) emerged in this study: community colleges are real colleges (Factor One), community colleges are a good starting place for students to begin (Factor Two), community colleges provide practical pathways for all students (Factor Three), and community colleges have a negative stigma (Factor Four) . Knowing these perceptions will help practitioners

predict high school counselors' advice to students during college selection discussions. The

findings illuminate opportunities for future research in this space. Additionally, the findings have

garnered some implications that tie to theory and practice.

DEDICATION

I dedicate this dissertation to the love of my life and wife, Jeannine McCoy and to my two children, Ryan and Kennedy. Their constant support, encouragement, and motivation has given me the strength to carry out this dissertation. A tremendous amount of heartfelt appreciation goes to each of them for sacrificing our family time together so that I could focus on this incredible experience. I appreciate the unconditional love that they poured into my heart throughout the entire process. I love you with all my heart, Jeannine, Ryan, and Kennedy!

ACKNOWLEDGMENTS

the countless conversations we had about the literature in this space and for pointing me to additional relevant research throughout my studies. I also extend my appreciation to the leadership of the Clark County School District (CCSD), Dr. Mike Barton and Ms. Gia Moore, for their support of this research and to the CCSD high school counselors who volunteered to participate in this study.

Finally, I would like to acknowledge my past, present, and future students and colleagues. I have learned a great deal about what it means to be an educator and leader from each of them. To all who have helped shape this project in their own specific way, a sincere gesture of thanks is given. Thank you for the unwavering support and guidance.

The experiential learning that went on during our interactions is something that I could have never learned from a textbook.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE: INTRODUCTION

INTRODUCTION

President Obama addressed the nation in 2010 and challenged American higher education practitioners to produce eight million more college graduates by 2020, listing this as the single most important step we can take to ensure the nation succeeds in the twenty-first century. Within the tapestry of higher education options, community colleges play a vital role in helping people earn a credential of value. In fact, of the eight million more college graduates that were needed by 2020, community colleges were asked to increase the number of associate degrees and certificates they award by five million, making these institutions responsible for over 60% of the graduates needed to reach the goal (Templin, 2011).

With over 1,100 community colleges in the United States today, these post-secondary institutions enroll over six million students each fall semester (Dougherty et al., 2017). The community college maintains an open access mission with a laser focus on creating opportunities for students regardless of their background. They provide educational pathways for students that lead immediately to the workforce, as well as pathways that provide a seamless bridge to the four-year university. These institutions provide opportunities for current high school students through early college programming, for recent high school graduates who are looking to begin their college journey, and for adults who turn to the community college to get on a pathway to reskill or upskill themselves to prepare for career advancement or a new one (Dougherty et al.,

2017). The multifaceted mission points of the community college today are certainly robust and are further described in Chapter Two.

There is no doubt that community colleges play an important role for millions of students each year who are looking to better their lives through a higher education. This is certainly important for the individual students who seek education beyond high school. Perhaps equally important and as noted earlier, increasing college attainment and the role that community colleges play in reaching these goals is a significant matter of importance for our nation in the 21st century. Therefore, it is imperative that more students choose the community college as a pathway for their educational goals. To better position community colleges to attract more students to enroll, graduate, and prosper, it is important to understand how community colleges are perceived not only by the general public, but also by people who have influence on college-choice decisions.

PROBLEM STATEMENT

Armed with the national college attainment vision, the Lumina Foundation, a private independent foundation that focuses on increasing college attainment for all Americans, set forth an aspirational goal of increasing college attainment to 60% by 2025. Reaching this goal is needed to ensure that Americans have the skills and training they will need to meet the ever-changing demands of the global economy. An educated populus is necessary to ensure no one gets left behind as more and more jobs of the future will require some sort of post-secondary credential (Merisotis, 2020).

To help achieve this goal, the Lumina Foundation deployed millions of dollars to help support states, colleges, universities, nonprofits, and other organizations to put into place concrete strategies to help increase college attainment Merisotis (2020). So how is the nation

doing to achieve the goal of increasing college completion rates as prescribed all those years ago?

In the 10 years since 2010 when President Obama challenged the country to increase college attainment rates, the percentage of Americans between the ages of 25 to 29 with an associate's or higher degree increased from 41% to 50% (National Center for Education Statistics, 2021). This increase of 9% is one indicator for college attainment that suggests the nation may be on track, but further efforts are needed to ensure we meet the larger goals. According to the Lumina Foundation, as noted in their publication, *Stronger Nation*,

> To reach 60%, we will need to refocus our efforts nationally. Specifically, we must help at least 7 million more of today's students—those whom higher learning has not served well, especially students of color and adults—enroll in and finish programs that lead to credentials of value. (p. 1)

While college attainment in the United States has steadily risen over the last 10 years, it is important that we continue to push toward reaching the goal of 60% of Americans having an earned post-secondary credential of value by 2025. To do this, we must double down our efforts to create a college going culture in America—particularly within our secondary school system.

REINFORCING A COLLEGE-GOING CULTURE FOR HIGH SCHOOL STUDENTS

It is essential for high school students to understand that while completing high school is important, earning a high school diploma in today's society should not be the final finish line to ensure success after high school. A college-going culture must be established early in a student's K-12 experience and must be reinforced often. So, what is a college-going culture? According to Blumberg-Corwin and Tierney (2007), "college culture in a high school cultivates aspirations and behaviors conducive to preparing for, applying to and enrolling in college. A strong college culture is tangible, pervasive, and beneficial to students" (p. 3). High schools must develop and

support an environment that not only prepares students for college, but an environment that also ensures that access to college going preparation is available to all students.

Traditionally, low-income students, ethnic minority students and/or potentially first-generation college students have perceived college access after high school to not be attainable. Many of these students don't see college in their future due to a variety of reasons. Some think college is out of reach due to the cost of college, some have a perceived lack of college readiness, and some think that college is not necessary to be successful in life (Blumberg-Corwin & Tierney, 2007). Many high school students do not have a family member who has completed college. Therefore, they do not have a role model at home who can show them the way to access college. For these reasons, it is imperative that high school leaders develop a college-going culture for all their students.

Researchers have identified critical components that should be considered by secondary and post-secondary leaders when trying to establish and support a college-going culture within a high school. Blumberg-Corwin and Tierney (2007) noted the following components are found in high schools with a college-going culture: (a) college level courses are offered to students while they are in high school, (b) they have an understanding of how college plans develop for students, (c) they have a clear mission statement that reinforces a vision for their students to prepare for and attend college after high school graduation, (d) they offer comprehensive service to help students in their preparation for college, and (e) they have formal partnerships with post-secondary institutions and community organizations that assist students in preparing for college.

A COMMUNITY COLLEGE GOING CULTURE

The nation's community colleges were built to provide an access point for every human being who desires a higher education. As such, the community colleges are primed to help meet this college attainment goal. To do this, it is important that our nation's community colleges are perceived by future college students to be credible, first-choice institutions of higher education.

Over the last few years, the researcher for this study has been passionately interested in how community colleges are perceived by various groups of people (high school students, parents of high school students, high school counselors, policy makers, philanthropists, adults of all age groups, etc.). The researcher has repeatedly questioned what factors influence perceptions of what community colleges are, what their missions are, and what place they hold within the fabric of higher education in the United States. Media messaging and political commentary often weave a story (some accurate; others not so accurate) about the role community colleges play and how community colleges rank within the perceived "pecking order" of higher education institutions. The researcher has often wondered about the perceptions of high school counselors in terms of community colleges, and whether these perceptions are based on stereotype, media sensationalism, rumor, personal experience, political commentary, or some other means by which perceptions are formed. The reputation of community colleges, and thus the credibility of community colleges, is an outcome of individual perceptions. So, to better understand the reputation of community colleges, it is important to first understand peoples' perceptions of community colleges and how these perceptions are formed.

MYTHS ASSOCIATED WITH THE COMMUNITY COLLEGE

Several studies have been conducted to look at how perceptions and attitudes may have an influence on how the community college is viewed. Through these studies, a variety of myths

about the community college have emerged. Palinchak (1973) noted in his study that there are several negative myths associated with how community colleges are viewed and these myths, therefore, have an impact on people's decisioins to attend a community college. His study revealed that these negative myths were established in the early days of community colleges.

LeClaire (2006) produced a research article entitled, "Five Myths About Community Colleges," and in it, attempted to debunk these five myths. The five myths that LeClaire (2006) discussed were:

Myth 1: Students only attend community college because they cannot get into a four-year university.

Myth 2: A degree from a community college is not as good as a university degree.

Myth 3: Community colleges are inexpensive, so the education is not high quality.

Myth 4: Community college credits do not transfer to four-year universities.

Myth 5: Community colleges have low academic standards.

LeClaire (2006) debunked each of these myths in her article, but nevertheless, these myths represented the perceptions of community colleges held by those asked in the general public. Hall (2007) noted these same negative myths in his research study. However, both LeClaire (2006) and Hall (2007) did not investigate how these negative attitudes may (or may not) have impacted a college bound student's decision to attend a community college.

Another research study used the scarcity principle and applied it to the perceptions of community colleges. Lynn (1992) found that the low cost and accessibility of community colleges could lead to inferior perceptions of community colleges. In other words, the often-touted affordability message made by community colleges could very well lead to a poor perception of community colleges. The perception of diminished value as framed by the notion

that "you get what you pay for" is a perception of community colleges held by many (Cox-Otto, 2006).

Sacks (2007) noted in his book that higher education options are often characterized by a pecking order best visualized by a traditional pyramid. In this pyramid, community colleges are at the base (bottom), less selective four-year colleges/universities are in the middle, and highly selective four-year universities are at the top. With community colleges being portrayed at the bottom of the pyramid, a perception could arise that community colleges are less than desirable to attend compared to a more selective college or university.

Admission standards were noted in another study as a variable impacting the perceptions of community colleges. Gould (2004) found that the absence of difficult admissions criteria in the community college contributes to a negative perception that students who are not academically qualified for a four-year university have to attend a community college to get a college degree because the courses are easier. Like community college affordability, the idea that community colleges tout an open-access message may be provoking negative perceptions of academic rigor associated with community college course work.

Finally, college completion outcomes have certainly contributed to people's perceptions of community colleges. Shulock and Moore (2007) noted in their study that, while a large number of students attend community colleges with a goal of earning a college degree, few actually do. Low completion rates, therefore, lead the general public to perceive that community colleges are not producing enough college graduates, which in turn provokes negative perceptions of the community college.

Each of these studies examined a variety of perceptions about community colleges that exist today. How pervasive are these perceptions? Do these perceptions impact the potential for

community colleges to help meet the national post-secondary attainment goals described earlier? Are these perceptions maintained by future college students and/or those that influence their college choice decisions? Specifically, do high school counselors share in these perceptions? Before these questions are more firmly laid out, it is important to look at the influence that high school counselors have on the college choice decisions that high school students make.

HIGH SCHOOL COUNSELOR'S INFLUENCE ON STUDENTS FOR THEIR COLLEGE CHOICE

When thinking about who may influence not only a college going culture for high school students, but who also plays a vital role in helping students make their college choice decisions, the high school counselor is at or near the top of the list (Belasco, 2013; Ilic & Rosenbaum, 2019). No doubt, high school counselors have a lot on their plate and are often consumed by operational tasks that take time away from counseling students about their future college decisions. However, despite the challenges, high school counselors remain uniquely positioned to increase the rates of college enrollment and persistence (McKillip et al., 2012). Research has shown that high school counselors "are key institutional agents that have the capacity to transmit valuable information, institutional resources, and opportunities regarding college to students" (Robinson & Roksa, 2016, p. 848).

PURPOSE OF THE STUDY

The purpose of this study was to identify the perceptions of community colleges that are held by high school counselors. As Hugo (2004) noted, high school counselors are instrumental in college choice for students; therefore, if community colleges are to be considered a viable option for students, it is important for counselor perceptions of the community college to be studied and understood.

Understanding the perceptions of community colleges held by high school counselors will help community college leaders more effectively communicate the mission and values of the community college. Armed with the actual perceptions of high school counselors, leaders can craft messages that reinforce the positive characteristics of the community college, while at the same time debunk any myths and negative stereotypes that may be perceived by these college-choice influencers. This future messaging should help high school counselors better understand the multifaceted mission points of the community college which should help them share accurate information to their high school students about all the benefits that community colleges have to offer. Of course, all of this resulting in at least one more strategy to increase post-secondary attainment in the United States.

RESEARCH QUESTION

The researcher designed the study to address the following research question:

- What are the viewpoints held by high school counselors toward community colleges?

Specifically, the research question for this study is centered specifically on determining the viewpoints high school counselors within the region of Southern Nevada hold toward community colleges. Further, the researcher examined the characteristics of these viewpoints based on the results of the sorting process of an exhaustive list of statements and qualitative data from a post sort survey.

THEORETICAL FRAMEWORK

Human Perception Theory (Fishbein, 1975) serves as the theoretical framework for this study. Human perception is the process by which a person organizes and interprets stimuli that they have received through one or more senses that are ultimately interpreted and serve as the

basis in formulating individual attitudes, behaviors, and beliefs. Fishbein (1975) defined

perception as an "affective variable that influences behavior" (p. 14). Fishbein (1975) noted in

this theory of perception that human perceptions lead to attitude formation which influence a

person's belief structure thereby creating behaviors that are aligned to these attitudes and beliefs.

It is important to understand the variables that lead to perception making in a given context if we

are going to be able to positively influence future behavior within that context.

The goal for this study was to understand the attributes or features of the community

college that are perceived by high school counselors so that we can ultimately understand how

these attitudes shape their beliefs and behaviors in the future. While this study did not look at the

counselors' actual behavior associated with delivering messaging to high school students about

community colleges, an important first step in this process is to identify their perceptions of

community colleges and to examine why they feel the way they do. These findings should help

community college leaders with their future messaging to high school counselors about

community colleges. This future messaging will be better positioned to reinforce counselors'

perceptions of the community college if these perceptions are accurate and/or will serve to

negate negative stereotypes or myths associated with the community college. Ultimately, if the

future messaging (stimuli) about community colleges is more refined to provoke positive

perceptions, as Fishbein (1975) posited, the counselors' attitudes should be positive. This, in

turn, should prompt them to deliver positive messaging (their behavior) about the community

college when they are helping students make their college choice decisions.

CONCEPTUAL FRAMEWORK

The conceptual framework for this study was built using the tenets of the Q methodology.

Q methodology is a mixed methods approach that uses both quantitative and qualitative data.

Researchers have indicated that the Q methodology is designed to determine perspectives from a given sample on a specific topic (Brown, 1993; van Exel & de Graaf, 2005; Watts & Stenner, 2012). Given this study's goal to identify the current viewpoints about community colleges as held by high school counselors and why they feel the way they do, the alignment in using the Q methodology was a good fit.

There are several components of the Q methodology framework the researcher must develop. As illustrated in Figure 1 below, the participants for the study, known as the *p* set, are determined. The researcher then develops a robust concourse of perception statements about the community college. This concourse of statements must be exhaustive and contain all perceptions associated with the community college that are gleaned from the body of literature, popular press, and the researcher's own experiences. Then, the researcher goes through a process to identify the themes that emerged and to reduce the concourse of statements to a sample that is fully represented of each of the categorical themes of perceptions. This final list of perception statements is known as the Q-set. Next, the participants (*p* set) engage in a perception statement sorting exercise known as the Q-sort. This sorting activity requires the participants to individually sort each statement based on their level of agreement or disagreement. The outcomes of the individual Q-sorts ultimately provide a set of perceptions or viewpoints that are statistically relevant. Additionally, the *p* set completes a post-sort survey as a means of garnering some qualitative data to better understand the participant's reasons behind their respective perceptions. A thorough description of the Q methodology and the specific study protocols are provided later in Chapter Three.

Figure 1. Conceptual Framework to Utilize Q-Methodology to Explore Viewpoints Toward Community Colleges
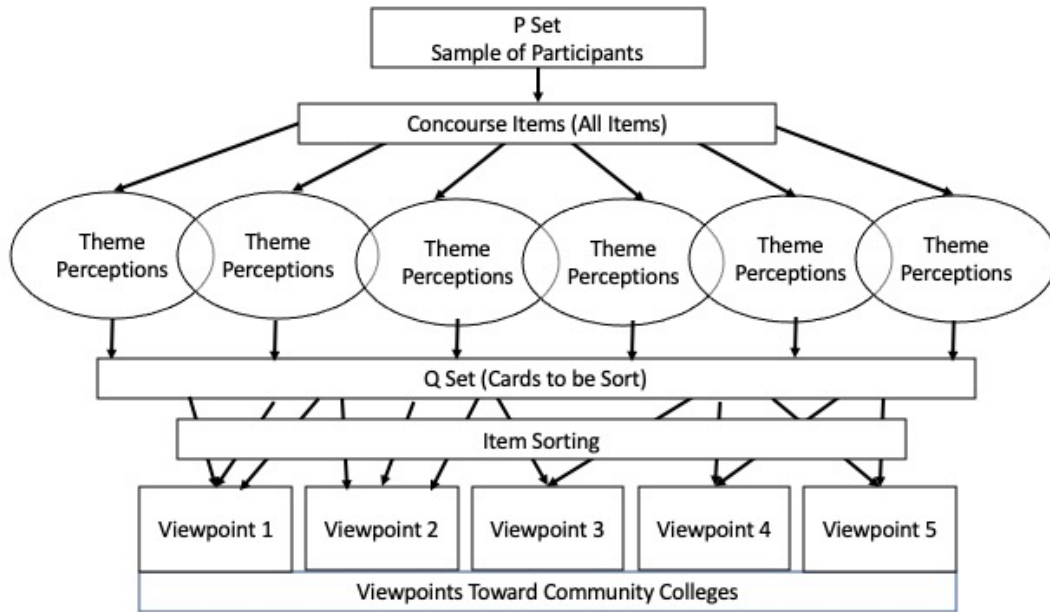
The significance of this study is multifaceted. While there are a handful of studies that have examined the perceptions that high school counselors have of community colleges (Alsboro, 1987; Botorff, 1975; Costley, 1977; Flowers, 1988; Fritze, 1974; Gallman-DeRienzo, 2009; Hartman, 1979; Huggins, 2010; Lewis, 1973; James, 1969; Mayo, 1973; Mitkos, 2007; Parham, 2011; Phyfer, 1992; Pike, 1980; Tisdale, 1994; Weaver, 1985; Williams, 1977), a few gaps in the body of literature remain.

This is the first study to utilize the Q method as the framework to understand counselors' perceptions of community colleges. As such, this study will contribute to the body of literature surrounding the Q methodology. This study could spark interest for other researchers to utilize the Q method when examining perceptions of other topic areas. Additionally, there has not been a study in this context conducted in the State of Nevada. The significance of this study will not

only contribute to the body of literature in this space but will fill a void for interested parties who seek to understand how community colleges are perceived by high school counselors in this particular region.

Next, this study contributes a comprehensive concourse of perception statements that broadly describe the possible perceptions of community colleges. This concourse of perception statements could be utilized by researchers who wish to further explore perceptions of the community college that are held by other groups of people.

Finally, the findings and implications for this study serve as a significant contribution to the body of research in this space. First, community college leaders will better understand how community colleges are perceived by high school counselors and can use this information to design marketing and other communication materials that aim to reinforce positive perceptions and debunk negative stereotypes and myths associated with the community college. Second, the findings from this study can help provide a framework for building curriculum for professional development programming. This professional development curriculum could be designed to educate high school counselors about the various mission points of the community college.

Additionally, the findings from this study can help to inform national messaging about the positive role that community colleges play in helping to educate students for the jobs of tomorrow. This messaging can be used to further advance the nation's goals to increase post-secondary attainment rates by highlighting the community college as described earlier in this chapter.

Ultimately, the significance of this study is to further shine a spotlight on the need for more Americans to pursue and earn a post-secondary credential of value. This study will illuminate the significant and positive role that the community college has within the tapestry of

higher education options. In doing so, this study should illustrate the myriad of positive attributes of the community college and arm high school counselors with the information they need when guiding high school students in their college choices.

STUDY LIMITATIONS AND DELIMITATIONS

LIMITATIONS

There are a few limitations of this study. First, the Q method is designed to extract perceptions of a given topic area from a small sample of people (known as the *p* set). As such, many of the findings of this study may not be generalizable to populations outside of the population that participated in this study. However, it is important to emphasize that a Q method study is purposefully designed to understand specific viewpoints of a particular topic that are held by a population.

Additionally, the Q-sorting process itself could influence the existing perceptions of a given topic area that are had by the participants. The sorting process exposes a broad set of perceptions about the topic under examination all at once. As such, this exposure could shape perceptions that might not have already been present in an individual.

Another limitation of this study is the time period in which it was conducted. The study launched in the early fall of 2021. This was in the middle of a global pandemic. As a result, participants who may have participated in this study might have chosen not to do so for any number of reasons to include personal illness, family illness, and/or additional demands for their time that were brought on by the pandemic.

A final limitation of this study relates to the time commitment and medium of participation that was required for participants to complete the Q-sort and post-sort survey. As noted in Chapter Two, high school counselors have considerable demands on their time. As a

result, counselors in the *p* set may not spend as much time engaged in the sorting process as would be desired by the researcher. Further, due to the nature of the pandemic, the sorting process needed to be completed by the participants online through an asynchronous Q-sort platform. This online medium may have been confusing for some participants.

DELIMITATIONS

There are a few delimitations for this study. First, the only high school counselors who were invited to participate were from the Clark County School District located in Southern Nevada. Second, only those counselors who were actively employed by the Clark County School District during the fall 2021 semester were provided with an invitation to take part in the study. Finally, the views of the counselors who chose to participate in the study may be different than the views of other counselors within the same school district.

DEFINITION OF TERMS

This study references the following terms as defined below:

Community College: "Any not-for-profit institution regionally accredited to award the associate in arts or the associate in science as its highest degree. That definition includes the comprehensive two-year college as well as many technical institutes, both public and private" (Cohen et al., 2014, p. 5).

Concourse: A fully representative list of all the possible perceptions associated with the topic being explored (Brown, 1993; van Exel & de Graaf, 2005; Watts & Stenner, 2012).

High School Counselor: A trained high school personnel who provide social-emotional counseling, college and career advising, administrative duties, support with students' personal

issues, and support for testing, bus/hall duty, etc. (Belasco, 2013; Ilic & Rosenbaum 2019; Lambie & Williamson, 2004).

Perception: "Affective variable(s) that influences behavior" (Fishbein, 1975, p. 14).

P set: The set of participants who are participating in the study (Brown, 1993; van Exel & de Graaf, 2005).

Q Methodology: An alternative form of factor analysis to operationalize subjectivity. The Q method helps researchers to identify different perceptions on a topic through a systematic procedure to include an analytical process that is clearly structured (Brown, 1980; Stephenson, 1953).

Q-Set: The selected representative sample of perception statements that is derived from the full concourse (Stephenson, 1993–1994).

Q-Sort: Each participant's ranked set of perception statements (Brown, 2004).

SUMMARY

There is no doubt that community colleges play an important role for millions of students each year who are looking to better their lives through a higher education. With a substantial goal of increasing college attainment in the United States, not only are community colleges going to have to welcome more students through their doors, but they must also support them to get across the college finish line.

However, the myriad of negative stereotypes and myths associated with the community college in general society may hamper the community colleges from reaching these goals. Therefore, we must identify whether these negative stereotypes are prevalently perceived by college choice influencers, such as high school counselors. As noted earlier, high school counselors play a significant role in creating a college going culture. They also have a lot of

influence on the college choice decisions that are made by high school students. As such, if the idea of attending a community college is going to be shared as a quality option for high school students, we must understand how high school counselors perceive community colleges.

The purpose of this study was to examine the viewpoints held by high school counselors toward community colleges. Through the lens of the theoretical framework of human Perception Theory (Fishbein, 1975) and the methodological framework of the Q method, the researcher for this study aims to answer the following research question:

- What are the viewpoints held by high school counselors toward community colleges?

Community college leaders could use the findings of this study to refine future messaging about community colleges to provoke positive perceptions, which should prompt or reinforce the counselors' attitudes towards community colleges to be positive. This, in turn, should prompt high school counselors to deliver positive messaging about the community college when they are helping students make their college choice decisions. Ultimately, helping to point more students to pursue and complete their college education at a community college. This, in turn, will help the nation to reach the 60% college attainment goal by 2025.

This dissertation is organized into four additional chapters. Chapter Two immediately follows this one and broadly includes a review of the literature associated with the elements of this study. The review of literature includes a detailed account of the history and mission of the community college, Perception Theory, Two-Year College Perception Theory, the role of high school counselors in a student's college selection decision. Chapter Two concludes with a thorough review of the previous studies that have been conducted that examined the perceptions of community colleges by high school counselors.

Chapter Three includes a deep exploration of the Q method, the methodology selected for this study. The origins of the Q methodology are explored followed by an overview of each step

of the Q method. In this chapter, the researcher provides more context to the Q methodology as it relates to this study by prescribing the steps that were taken to develop the concourse, determine the Q-set, firm up the p set, and develop the instrument to collect the data. Chapter Three concludes with an overview of the data analysis approach that was used.

Chapter Four provides the findings for this study. The chapter begins with a brief description of the data collection process followed by the participant (p set) demographic information that was gathered through the post-sort survey. Chapter Four continues with the correlations that emerged between the sorts followed by a factor analysis to include the highest and lowest ranked statements in each factor (group), a list of consensus statements (those statements that are commonly ranked between each group), and the factor arrays. An interpretation of each factor that emerged is also included.

Chapter Five provides the researcher with the opportunity to discuss the findings that resulted from this study. This includes a detailed description of the four factors that emerged and a discussion of the consensus statements that all four factors were in alignment with. Later in Chapter Five, the limitations for this study are further discussed as well as the implications for theory, practice, and future research.

CHAPTER TWO: LITERATURE REVIEW

INTRODUCTION

The purpose of this study was to investigate how high school counselors perceive community colleges. Specifically, the Q method, a mixed methods approach, was used to examine the perceptions that high school counselors in Southern Nevada have toward community colleges. This chapter highlights the relevant literature associated with the history and mission of the community college, Perception Theory, Two-Year College Perception Theory, the role of the high school counselor in the college selection process and concludes with an overview of the body of research done over the last five decades regarding the perceptions of community colleges as held by high school counselors.

HISTORY AND MISSION OF THE COMMUNITY COLLEGE

Well over 100 years ago, the concept of the community college was conceived. The community college was born out of the recognition that there needed to be an institution of learning beyond high school that would meet the needs of all Americans who sought training and that would provide a pathway to a career with upward mobility. There has been much debate on when and where the concept for such an institution was envisioned. Scholars Witt et al. (1994) described the difficulty in nailing down who exactly started the first community college. Historians found that there were some private, two-year colleges that were established in the 1800s that operated like what we have come to learn about America's public community college that were formally established in the early 1900s (Blocker et al.,1965). These scholars referenced

the establishment of Monticello College in 1835 which looked much like the two-year 'junior college' emergence that occurred over 65 years later.

While the history of the establishment of the first two-year college experiment may still be debated, Joliet Junior College (JCC) is attributed as the first American *public* two-year (community) college and was first established in 1901 as an extension of Joliet High School in Joliet, Illinois. The concept was created by J. Stanley Brown, superintendent of Joliet Township High School, and William Rainey Harper, president of the University of Chicago. Their vision for the junior college was to focus on graduating high school students and other students from the local community and to provide them with a two-year college experience that would mimic the first two years of college from a four-year university (Hardin, 1986). Interestingly, Joliet Junior College is still in existence today and operates as the oldest, continuously serving community college in the nation.

Since the establishment of JCC in 1901, the last 120 years have been characterized as an ongoing evolution of the mission for two-year colleges. Tillery and Deegan (1985) are cited throughout the body of literature as characterizing this evolution by defining five generations of change for the two-year college. They characterize the first generation from 1900 to 1930 as the two-year junior college that essentially served as an *extension of high school*. This, of course, was the catalyst for the establishment of Joliet Community College and the over 200 other junior colleges that emerged during this first generation (Cohen & Brawer, 1996). The idea was to provide a convenient pathway for recent high school graduates who were interested in continuing their education to be able to do so without having to leave their home community. This essentially extended the K-12 experience for two additional years and served as a transitional pathway between high school and the four-year university.

Tillery and Deegan (1985) defined the second generation of the community college movement to have occurred between 1930 and 1950 and is known as the *junior college generation*. During this time, the Great Depression spurred an increase in enrollment at junior colleges as Americans sought to go to college to retrain and upskill during the economic downfall. With limited job opportunities during the Great Depression, the junior college provided educational and career preparation pathways for not only recent high school graduates, but for all Americans looking for a way out of the economic turmoil spawned by this era (Tillery & Deegan, 1985). Of course, the start of World War II caused a negative hit to enrollments at junior colleges, however the end of World War II triggered a boom for the nation's junior colleges. This, in large part, was a result of the Serviceman's Readjustment Act of 1944 otherwise known as the GI Bill as well as the establishment of the 1947 President's Commission on Higher Education which recognized the introduction of the term, community college (Witt et al., 1994). At this point, the establishment of more community colleges (a transition away from the semantics of the junior college) paved the way for the third generation.

While the original vision for the community college as established through Joliet Junior College was to provide the first two years of college to primarily recent high school graduates from the local high school(s), the next generation brought on significant mission enhancements and growth for the two-year college movement. The third generation of the community college evolution occurred between 1950 and 1970 and is characterized as the *community college generation* (Tillery & Deegan, 1985). Following the Korean War, by 1960 there were over 400 public community colleges operating in the United States (Cohen & Brawer, 1996). During this third generation, the U.S.S.R. launched the Sputnik satellite, and as a result, the United States established the National Defense Education Act (Witt et. al 1994). Community colleges rose to

the occasion and began to engage an enhanced focus of providing technological education. The aim was to prepare students with the education they would need to help the country be better prepared for the technological advancements of the future. Within a ten-year period, the number of community colleges doubled, and by 1970 there were 847 community colleges in existence (Cohen & Brawer, 1996). It was during this same generation that the now college-age baby boomers, who were born during the years that servicemen and women returned home from World War II, began to enroll in community colleges. This prompted a significant enrollment increase and a more comprehensive mission for the community college soon emerged (Witt et. al, 1994).

Tillery and Deegan (1985) referred to the fourth generation of the community college movement as the emergence of the *comprehensive community college* that took place between 1970 and 1985. With the end of the Vietnam war, returning servicemen and women flocked to the community college near their hometowns. It was during this time, that the country saw an additional 200 community colleges emerge (Cohen & Brawer, 1996). However, as a result of the economic roller coaster of the 1980s, a decline in federal student aid occurred which resulted in limited enrollment growth at the nation's community colleges (Witt et. al, 1994). Later in the same decade, community colleges were positively touted by President Bush noting the great role they play in communities in providing access to a higher education for anyone who seeks one. Later during this generation, there was federal legislation passed that proved to be instrumental in reinforcing the access mission of the comprehensive community college. Both the Higher Education Act of 1987 and the Perkins Act of 1991 provided further support for students seeking a community college experience.

Tillery and Deegan's (1985) defining work surrounding the generations of community colleges was published in 1985. As such, the fifth generation had been briefly forecasted, but was not officially named at that time because the fifth generation had not yet begun. However, several scholars have built upon the work of Tillery and Deegan (1985) to bring generational definition to the last 35 years.

Building on Tillery and Deegan's work (1985), scholars have attempted to name the fifth generation of the community college that time stamped from 1985 to the early 2000s (Cohen & Brawer, 1996; Dougherty, 2001; Levin, 2001). Much debate has occurred in trying to name the fifth generation perhaps due to the overwhelming comprehensiveness of the mission of the community college that was labeled as the fourth generation (Levin, 2001; Watson, 2005). However, Watson (2005) posits that the fifth generation of the community college should be coined as the *entrepreneurial community college*. She found that the fifth generation of community colleges is exemplified best by the proactive engagement with external partnerships and a focus on issues of affordability, access, and accountability (Watson, 2005).

Throughout these generations, it is clear that the mission of the community college has evolved over the years. From providing a pathway for the first two years of college for recent high school graduates, to meeting the workforce development needs of a community and nation, the role of the community college within the fabric of high education options has certainly progressed. Today, the comprehensive, entrepreneurial mission of the community college has moved from one of access to one of access coupled with a laser focus on student success and equity. Community colleges can no longer swing the doors open wide with an access mission in mind without also meeting students where they are in their academic journey to proactively help them reach their success (Bailey et al., 2015).

In contemplating today's community college, scholars Cohen et al. (2014) dialogued about the multifaceted community college through different lenses. Today, community colleges serve students from every background and are taught by high quality faculty from every spectrum of academic experience. While community colleges today have evolved into a variety of structures and governance models, a universal focus of transformation continues as a means of enhancing their approach to instruction, student support services, developmental education, transfer student preparation, curriculum innovation, workforce preparation, local economic development, and community education through a variety of accountability measures (Cohen et al., 2014). Indeed, the mission of today's community college is truly comprehensive and will undoubtedly continue to evolve.

Given the ever-changing and dynamic mission of the community college over the years, it is important to look at how human perception shapes the attitudes and ultimately the behaviors of people when they think about what the mission of the community college is today. As such, the following section describes Perception Theory (Fishbein, 1975) which was used as the theoretical framework for this study.

THEORETICAL FRAMEWORK: PERCEPTION THEORY

This study is built around the basic premise of Perception Theory (Fishbein, 1975). Human perception is the process by which a person organizes and interprets stimuli that they have received through one or more senses that are ultimately interpreted and serve as the basis in formulating individual attitudes, behaviors, and beliefs. Fishbein (1975) defined perception as an "affective variable that influences behavior" (p. 14). Further, Pike (1980) characterized these affective variables as "salient beliefs that are derived from their experiences and give meaning to objects" (p. 9). Fishbein (1975) noted in this theory of perception that human perceptions lead to

attitude formation which influence a person's belief structure thereby creating behaviors that are aligned to these attitudes and beliefs. Therefore, it is important to understand the variables that lead to perception making in a given context if we are going to be able to positively influence future behavior within that context. Further, attitudes, beliefs and behaviors are often a result of the outcomes of perceived credibility and perceived reputation (Fishbein, 1975).

As noted earlier, the given context for this study is on community colleges and the perceptions that high school counselors have of these post-secondary institutions. The basic premise for this study was to determine what these perceptions are as well as the strength of these perceptions as rated by high school counselors.

So, what do we know about the current perception of community colleges? To help answer this question, it is important to know the variables or attributes about the community college that are perceived by college choice influencers, such as high school counselors. This information can be used to better understand how these attitudes shape beliefs, perceived reputation, and behaviors associated with the advisement of high school students as they consider the community college as an option for their future.

TWO-YEAR COLLEGE PERCEPTION THEORY

Building on the basic tenants of Perception Theory (Fishbein, 1975), this study is also structured around the premise of the Two-Year College Perception Theory that was theorized by Gallman-DeRienzo (2009). The Two-Year College Perception Theory is based on the premise that the perceptions of high school counselors of community colleges are derived from three specific influences to include their demographic and employment characteristics, their cultural capital, and their familiarity with the mission of two-year colleges (Gallman-DeRienzo, 2009).

Figure 2 illuminates how these three factors influence the perceptions that high school counselors may have of the community college.

Figure 2. Two-Year College Perception Theory
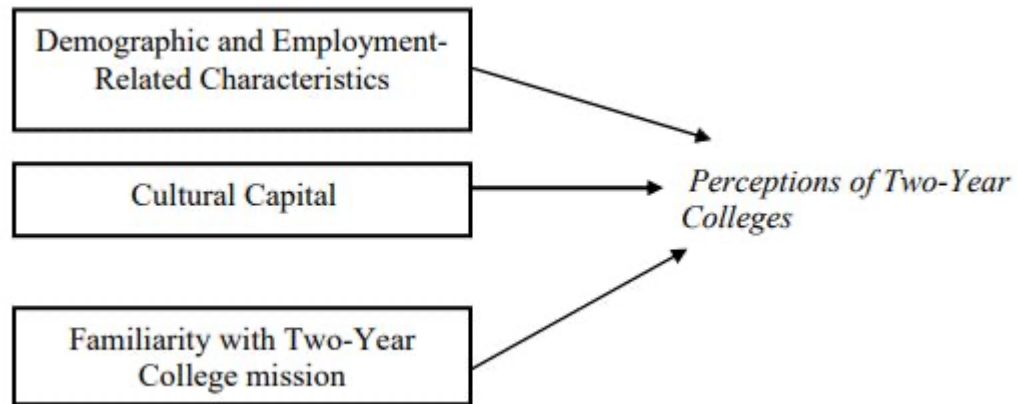
Source: Gallman-DeRienzo, 2009, p. 52

Again, while this study does not aim to understand *how* the perceptions of community colleges are formed by high school counselors, the researcher in this study does acknowledge that these three underlying factors may *influence* high school counselor perceptions of community colleges. Understanding these influences may help to explain later how the perceptions that emerge from this study were formed.

The first influence that may factor into a high school counselor's perception of community colleges is the demographic and employment influence. For example, a high school counselor's demographic and employment background to include their gender, ethnicity, age, counseling experiences and employment experiences outside of counseling may influence their perceptions of community colleges. Several studies are highlighted later in this chapter, all of which have investigated the impact these demographic and employment factors may have on a counselor's perceptions of community colleges (Alsboro, 1987; Costley, 1977; Hartman, 1979; Lewis, 1973; James, 1969; Phyfer, 1992; Tisdale, 1994).

The second influence that makes up Gallman-DeRienzo's (2009) Two-Year College Perception Theory is the cultural capital of the counselor. Cultural capital derives from the work of French sociologist, Pierre Bourdieu, and is rooted in the premise that people maintain social structures based, in part, on scarce resources and will often transmit these inequities to other societal groups to only perpetuate the disparity among these social groups. In other words, the rich get richer, the educated get more educated and the lower class stay lower class, generation after generation (Bourdieu, 1977). As such, a counselor's cultural capital may be transmitted to high school students they advise (Gallman-DeRienzo, 2009).

The third influence that may factor into a high school counselor's perception of community colleges is the notion of familiarity (Gallman-DeRienzo, 2009). The extent to which a high school counselor is familiar with community colleges may play into their perceptions of community college. This level of familiarity may be measured by things such as a high school counselor's personal experience as a past community college student themselves and/or the extent to which they have visited and toured community colleges in the past. Gallman-DeRienzo (2009) posited that their perceptions of the community college may be "shaped by what they know about two-year colleges, and possibly influence what they tell students during the advising process" (p. 47). Based on this premise, it is reasonable to surmise that if a high school counselor attended a community college as a student, their level of familiarity with the community college mission is higher than that of a counselor who did not experience the community college as a student. Thus, this level of familiarity could certainly influence their perceptions.

Finally, as Gallman-DeRienzo (2009) discussed, Tversky and Kahneman (1982) found the retrievability of information is affected by the person's familiarity with the item being perceived. This could mean the more familiar something is to someone, the more likely it will be

27

retrieved quickly from memory. Therefore, it is reasoned that high school counselors' familiarity with the mission of two-year colleges through their own experiences as a community college student themselves, increases their retrievability of information regarding two-year colleges. This ease of retrievability could lend itself to a quick remembrance of the community college experience that they had, which in turn, may have formed foundational perceptions for them that become easier to recall.

HIGH SCHOOL COUNSELORS

High school counselors play a key role in influencing high school students' decisions regarding college (Belasco, 2013; Bryan et al., 2009; Ilic & Rosenbaum, 2019; McKillip et al., 2012). The following section describes the establishment of the role of the high school counselor. Additionally, an overview of the body of literature that has documented the role of the high school counselor in the college selection process of high school students is provided.

THE ROLE OF HIGH SCHOOL COUNSELORS IN COLLEGE SELECTION

As noted earlier in this chapter, the launch of Sputnik by the U.S.S.R. in 1957 instigated a new generation of the community college. This action by the Soviet Union also became the accidental catalyst for the emergence of school counseling on a widespread scale (Lambie & Williamson, 2004). Shocked by this historical event, the United States passed the National Defense Education Act (NDEA) in 1958 as a means to "identify, guide, and support those students with high aptitudes in the areas of math and science so that they might become future technological innovators" (Lambie & Williamson, 2004, p. 126). Funds from this legislation were "allocated to provide counseling services to all high school students with counselors that

had been trained to identify gifted students and guide them towards college" (p. 126) while other funds supported the creation of school counseling training programs.

For the next decade, high school counselors functioned as gatekeepers—seeking out and actively encouraging those with the best talent and most potential to pursue higher education at four-year institutions, while discouraging others—often equally aggressively—from attending college at all by withholding recommendations, information, or access. As such, researchers note that early studies painted counselors in a more negative light due to these practices. It has only been over the last few decades that the research findings have shifted and overall seen far more positive results, with counselors being the prime influence for students to attend college, regardless of their perceived ability or socioeconomic status (Belasco, 2013; Ilic & Rosenbaum, 2019; Ilic et al., 2020; Mitkos & Bragg, 2008; Robinson & Roska, 2016; Rosenbaum et al., 1996).

In their often-cited work, "Gatekeeping in an Era of More Open Gates," Rosenbaum et al. (1996) state that between the 1960s and the 1990s, the work and image of school counselors also evolved multiple times. These shifts included changes in perception (brought on by studies and documentaries that showed counselors in the act of gatekeeping), an attempt to increase visibility by taking on more administrative functions, an increased offering in terms of the number of community colleges, and the expansion of open access policies (Cohen & Brawer, 1996). The myriad choices that emerged meant that counselors had more options to offer students, even including those whom counselors might have previously called unsuitable for higher education (McKillip et al., 2012; Rosenbaum et al., 1996).

Particularly in the 1980s and 1990s, budget cuts, increased job demands, and the shift of course requirements and classroom placement into the hands of school departments and state

regulatory agencies left counselors in a more administrative capacity, where "scheduling, monitoring, and paper pushing" (Rosenbaum et al., 1996, p. 261) became the norm (Belasco, 2013; McKillip et al., 2012). As such, the role of high school counselors even now is often hard to define, including everything from providing social-emotional counseling, college and career advising, administrative duties, support with students' personal issues, and even non-counseling work like testing, bus/hall duty, and more (Belasco, 2013; Ilic & Rosenbaum 2019; Lambie & Williamson, 2004).

Research has also shown that with increased caseloads, job demands, and a lack of time, training, and/or information, advising students about college options as well as how to prepare for them is often minimal at best, replacing specific interactions and advice with merely generic information transfer (Belasco, 2013; Ilic, Rosenbaum et al., 2020; McKillip et al., 2012; Rosenbaum et al., 1996).

However, despite the challenges, high school counselors remain uniquely positioned to increase the rates of college enrollment and persistence (McKillip et al., 2012). Research has shown time and again that they "are key institutional agents that have the capacity to transmit valuable information, institutional resources, and opportunities regarding college to students" (Robinson & Roksa, 2016, p. 848). High school counselors are and will continue to be recognized as an important influence for students in terms of college aspirations, guidance, and selection (Belasco, 2013; Bryan et al., 2009; Ilic & Rosenbaum, 2019;). As Hugo (2004) noted, high school counselors are instrumental in college choice for students; therefore, if community colleges are to be considered a viable option, it is important for counselor perceptions to be studied and understood.

Over the last five decades, several researchers have examined the perceptions of community colleges as held by high school counselors (Alsboro, 1987; Botorff, 1975; Costley, 1977; Flowers, 1988; Fritze, 1974; Gallman-DeRienzo, 2009; Hartman, 1979; Huggins, 2010; James, 1969; Lewis, 1973; Mayo, 1973; Mitkos, 2007; Parham, 2011; Phyfer, 1992; Pike, 1980; Tisdale, 1994; Weaver, 1985; Williams, 1977). Each of these scholars uniquely added to the body of literature and paved a solid foundation for the extension of research that has been conducted through this study. The following section includes a brief description of each of these foundational studies as well as a summary of their respective findings.

One of the first researchers to study high school counselors' community/junior college perceptions, James' (1969) development of the Junior College Attitude Survey (JCAS) became the model by which subsequent quantitative studies over the next few decades would be conducted. Through analysis of a perceptions survey and accompanying data sheet completed by study participants, James (1969) measured the impact of aspects such as gender, position, professional training, level of education, junior college proximity, and actual visits to junior colleges to determine their influence upon perceptions held by high school counselors in Illinois. His seminal study ultimately determined that those who had visited junior college campuses, had been visited by representatives of those campuses, or otherwise had similar experiences with junior colleges often had more favorable perceptions of them (James, 1969).

Lewis (1973) used the Junior College Attitude Survey to study high school counselor perceptions across a four-county urban area of Texas. In addition to the variables James (1969) had studied, Lewis (1973) added two more: the last year of the high school counselor's attendance in a college degree program, as well as the work experience of the counselor outside the field of education. His results were comparable to those of James' (1969) study, though

Lewis did not find that junior college campus visits or visits by junior college representatives to the high school had a measurable effect on their perceptions (Gallman-DeRienzo, 2009; Lewis, 1973; Tisdale, 1994).

Mayo's (1973) work sought to identify the perceptions of high school counselors concerning the North Carolina Community College System, which had been established 10 years prior, by surveying a stratified random sample of counselors and examining six aspects of community colleges: program, clientele, articulation, staff, philosophy, and effectiveness. Seeking to identify whether the community college system's new open access policy was favorable or unfavorable to high school counselors, personal and environmental variables studied included contact with the North Carolina Community College System, employment status, educational attainment, experience as a counselor, sex, high school enrollment, location of high school, distance of high school from a community college, and experience in business or industry.

Ultimately, Mayo (1973) determined there were no significant differences in attitude toward the North Carolina Community College System, regardless of whether counselors reported high or low contact—although three specific types of contact did yield significant results (listened to/viewed a community college radio or television program, used community college facilities for meetings, and participation in an articulation workshop). Additionally, full-time counselors and female counselors had a more favorable perception of the college system than part-time counselors and male counselors (Mayo, 1973).

In 1974, Fritze used the Junior College Attitude Survey to study perceptions of advisors he supervised in an Oklahoma public school, with the intent of discerning whether there were significant differences between the perceptions of counselors in Oklahoma versus those working

in Illinois and Texas. Ultimately, he found that "Oklahoma counselors' perceptions of the junior college were more favorable than those in Illinois but less favorable than those in Texas" (Gallman-DeRienzo, 2009, p. 32). Fritze (1974) did not find any significantly different attitudes across graduating class size, proximity to junior colleges, or the most recently earned degree or certificate, but did find that junior college attendance to be a significant variable (Fritze, 1974; Gallman-DeRienzo, 2009; Parham, 2001; Tisdale, 1994;).

Botorff (1975) incorporated a new variable into his study that analyzed perceptions of high school counselors in Arkansas community college districts organized as part of the Higher Education Act of 1965 in addition to those formed after the Higher Education Act was reauthorized in 1973. Using a modified version of James' (1969) Junior College Attitude Survey, he ultimately found no significant difference between perceptions of high school counselors in Arkansas and those in the Illinois, Texas, and Oklahoma studies (Botorff, 1975; Tisdale, 1994,; Gallman-DeRienzo, 2009).

Additional variables of counselor ethnicity, school funding source, counselor-to-student ratio, and counselor certification status were introduced in Costley's (1977) modification of the Junior College Attitude Survey that studied perceptions of Mississippi high school counselors. No significant differences were found apart from those related to the size of the high school, but Costley did find that counselors not only had favorable perceptions of junior colleges overall, but that those perceptions were even more favorable in instances where the counselors themselves had a junior college experience (Costley, 1977; Tisdale, 1994; Gallman-DeRienzo, 2009; Parham, 2011).

Williams' (1977) study did not use James' (1969) Junior College Attitude Survey, but rather an instrument he developed to compare perceptions of two-year colleges, four-year

colleges, and private colleges among Kentucky high school counselors and students. While more focus was placed on the comparison of perceptions between high school counselors and high school graduates, Williams asked counselors specifically to respond to a series of questions not asked of students. These survey items asked counselors to rank two-year colleges, four-year public colleges, and private colleges in varying categories. Of these, community colleges were ranked above the four-year and private colleges in terms of cost, general atmosphere, classroom atmosphere, and treatment of students, indicating that Kentucky high school counselors believe that the environment of two-year colleges are more "friendly and personal for the individual students than the environment of the four-year college" (Williams, 1977, p. 87).

Additionally, a significant difference showed that Kentucky counselors believed that two-year colleges "will grow faster than four-year colleges in the foreseeable future" (Williams, 1977, p. 87). This is intriguing foreshadowing of the rapid growth that community colleges would go on to see in later decades. This study showed that while counselor survey results may have favored four-year institutions over two-year institutions overall, key components that are considered hallmarks of community college education now were being favorably perceived by Kentucky high school counselors in a time when positive perceptions of two-year colleges were just starting to emerge (Williams, 1977).

Hartman (1979) modified the Junior College Attitude Survey once again, including variables such as counselor gender, school assignment, highest degree earned, distance and geographic location from the nearest two-year college, years of teaching experience, and completion of a course at a two-year college. While none of these variables proved significant in terms of impact on perceptions, Hartman's (1979) study yielded the first "discernible trends in counselor/school traits seeming to foster positive attitudes regarding community or junior

34

colleges" (Tisdale, 1994, p. 30). He was also able to conclude that "direct contact with an institution affects attitudes, age and experience affect changes in attitudes, and that information provided to counselors about two-year colleges may be inadequate" (Gallman-DeRienzo, 2009, p. 33).

Interestingly, Hartman's (1979) study also found that the least positive perceptions of two-year colleges were from males younger than 55 with fewer than 10 years' counseling experience, who worked primarily in urban schools and had never visited a community college. Meanwhile, the most positive perceptions of community colleges came from female counselors over the age of 55 who had 10 to 25 years of counseling experience, worked at schools within a 40-mile radius of a community college, and had visited a two-year college campus (Gallman-DeRienzo, 2009; Hartman, 1979; Tisdale, 1994;).

Pike (1980) used a special Likert-type questionnaire to survey full-time high school counselors and teachers across the 10 schools located in five public school districts in Michigan to understand perceptions of Schoolcraft College. The first 40 items included questions about specific aspects of the college, including general philosophy, organization, curricula, programs, student and faculty characteristics, and services. The remaining 12 items were data variables that included personal variables, education variables, high school enrollment, contact with the community college, and professional experience variables (Pike, 1980). While much more geared toward teachers than counselors (of the approximately 550 surveys returned, only 50 were from counselors), the perceptions overall were still favorable of two-year institutions.

In 1985, Weaver took Williams' (1977) instrument and modified it for her study that analyzed perceptions of two-year, four-year public, and private institutions held by high school counselors and students at public, private, and parochial high schools in Hillsborough County,

Florida. Students were surveyed before and after they started college to monitor changes in their perception as well. No statistical differences were noted in terms of high school counselor perceptions across the different types of high schools, and Weaver (1985) concluded that the high school counselors did not affect students' decisions about college or the perceptions they have about higher education institutions. While more than 80% of the students had seen counselors, fewer than 10% of these interactions influenced their college decisions, and the perceptions high school counselors had of higher education institutions did not appear to influence their decision-making.

While the Williams (1977) and Weaver (1985) studies go a bit beyond the scope of exclusively analyzing high school counselor perceptions of community colleges specifically, it is noteworthy to mention the disparity of perceptions as further evidence of the need for this work. It is concerning that in many cases, the perceptions of the high school counselors and those of the students were not aligned. For example, students in Weaver's (1985) study thought private colleges were best in terms of serving student needs, while high school counselors believed that community colleges were best. Students perceived that community colleges had the best library holdings as opposed to counselors rating four-year public institutions as the best, and students believed that four-year universities were most responsive to community needs while counselors believed that community colleges were (Weaver, 1985). This misalignment in perceptions could potentially be proof that such differences between two and four-year colleges are not being communicated well between counselors and students, posing another reason why understanding high school counselor perceptions can help ensure students better understand their options and opportunities at community colleges.

Alsboro's (1987) study modified the Junior College Attitude Survey to better suit an analysis of perceptions of one community college, Lake Michigan College, by counselors and teachers at two different high schools within the college's district. Variables included in the study were professional role, high school district, knowledge of college programs, such as academic, technical, developmental, continuing education, student services, faculty, counselors, and student body (Alsoboro, 1987). While there were no significant differences between counselor and teacher perceptions of Lake Michigan College in terms of nearly all the demographic variables, the study did note that visits from community college counterparts showed a significant increase in positive perception of the college (Alsboro, 1987; Galman-DiRienzo, 2009).

A portion of the Junior College Attitude Survey from James' (1969) work emerges again as part of Flowers' (1988) study of counselor perceptions in Alabama. In order to determine possible relationships between perceptions and advising practices, counselors reported their pre-college advisement practices by answering questions about how they advised students to attend four-year or two-year institutions. This student assessment used 15 variables that included level of high school curriculum, academic ability, class rank, SAT scores, personality, socioeconomic status, gender, race, parent level of education, financial ability, maturity level, extracurricular activities, leadership activities, individual lifestyle, student goals, and aspirations.

A significant relationship was found between counselor perceptions and advising practices for two-year colleges. While the overall perceptions of community colleges were favorable, results showed that personal attributes of students predicted negative attitudes toward two-year institutions, accounting for approximately 9% of the variance in counselor attitudes (Flowers, 1988; Gallman-DeRienzo, 2009; Tisdale, 1994). As Flowers (1988) noted, students

37

identified as mature, goal-oriented, independent, and interested in extracurricular activities were encouraged by counselors to attend four-year colleges and universities, while students deemed immature and unengaged would be advised by counselors to attend community college. Furthermore, Black counselors, female counselors, and older counselors, as well as those who had attended a two-year college, tended to advise students based on the students' attributes and socioeconomic status (Flowers, 1988; Gallman-DeRienzo, 2009; Parham, 2011).

Phyfer's (1992) study also used a modified version of the Junior College Attitude Survey in order to understand perceptions of high school counselors and teachers concerning Three Rivers Community College in Norwich, Connecticut by utilizing nine of James' (1969) original variables. The study sought to determine the effect of these variables on counselor and teacher attitudes, and then compare those with the faculty and professional staff of the neighboring college. Study data revealed that while the counselors and teachers thought favorably of the community college, the faculty and staff of the college had even higher perceptions of their institution. Additionally, Phyfer (1992) found significant differences between gender and age (female counselors 50 years and older responded even more favorably) and among those who had either visited or attended community college themselves (Gallman-DeRienzo, 2009; Parham, 2011; Phyfer, 1992).

Noting low community college attendance rates as part of the impetus for his study, Tisdale (1994) developed his own instrument to learn about high school counselor perceptions of the four-year, two-year, and proprietary institutions in the state of Colorado. He discovered that most counselors had positive perceptions of two-year institutions, finding that minority and male counselors also had more positive perceptions than did female and non-minority counselors. The majority of counselors felt that community college instruction was equal to that of four-year

institutions, and counselors who had attended a two-year college had a more favorable perception than counselors who had not (Gallman-DeRienzo, 2009; Tisdale 1994).

In her case study, Mitkos (2007) studied perceptions of high school counselors and advisors of a fictitious Midwest college, and how those perceptions informed their student advising. Ultimately her work yielded favorable impressions in terms of offering low-cost, quality instruction, developmental remedial education, active partnerships with secondary education and general transfer courses—perceptions that were also informed by the perceptions of academic leaders and that were also passed down to students. However, there were unfavorable perceptions of the community college that revolved around the open admissions policy, which stemmed from the belief that the academic rigor and standards were thus less than those of the four-year institution (Gallman-DeRienzo, 2009; Mitkos, 2007).

Gallman-DeRienzo (2009) overhauled the James (1969) Junior College Attitude Survey for her study of high school counselor perception of two-year colleges (she was also the first to study perceptions across different two-year institutions, which included technical/vocational colleges, community colleges, regional branch colleges, tribal colleges, and independent junior colleges). She replaced junior college terminology with two-year college terminology and only retained survey questions from James related to two-year colleges (1969). The Likert scale of the Junior College Attitude Survey was replaced with a yes/no format, resulting in 34 items for her Two-Year College Perception Survey (Gallman-DeRienzo, 2009). By using a scoring system for yes/no items based on whether the statements about two-year colleges were viewed as favorable or unfavorable, high scores at the end of the survey meant that the overall perceptions were favorable. An accompanying data sheet was coded for gender, race, distance from the high school to the closest community colleges, whether or not a community college had been visited

by the survey respondent as part of their advising responsibilities, if courses were taken at the community college, number of years as a counselor, the respondent's highest level of educational attainment, and an estimate of the percentage of the high school's graduates who immediately enroll at two-year colleges as a first-time freshman immediately upon graduation (Gallman-DeRienzo, 2009).

Overall, perceptions of the two-year colleges were positive, and as noted earlier in this chapter, Gallman-DeRienzo (2009) found that familiarity with a two-year college (whether through a visit, a course, or more students attending), a master's degree, and more years a counselor had been working were all factors that resulted in a more positive correlation to perceptions of two-year colleges. Her study did not show that perceptions correlated with proximity to a two-year college, which confirmed Fritze's (1974) findings but refuted those of Borttoff (1975) and James (1969).

Huggins (2010) interviewed 10 high school counselors from a school system in Louisiana to explore their perceptions of community and technical colleges. One of the major themes that emerged from the interviews of the fictitious school system was that counselors discussed community college with students for one of three reasons: (1) if students were not ready for a four-year option, (2) if they were interested in a four-year option but there was not an available program, or (3) if they were not interested in the four-year option at all. Findings also suggested that counselors did not have any interaction with their local community college and had not received enough training or information about community colleges through education or professional development to form any positive perceptions. As such, their general feelings about community colleges was that they were a last resort rather than a primary educational option (Huggins, 2010).

Parham (2011) conducted the most recent study of California high school counselor perceptions of community colleges through a case study in which she evaluated the personal experience with community colleges, perceived quality of education and marketing materials of community colleges, and perceptions of community college as a primary pathway among 10 different high school counselors. Additionally, the influences of these perceptions upon advising practices of high school students were evaluated. Overall perceptions were positive, and while printed material had little impact on perception, contact with community colleges in varying capacities did positively impact perception. Parham (2011) noted that "perceptions are ever-evolving based upon these experiences" (p. 2).

SUMMARY

The evolution of the mission of the community college over the last 120 years has certainly been ever-changing. As history has unfolded, the role that community colleges have had within the tapestry of higher education has been one of accommodation of the times as well as reaction aimed to provoke a better future for students and for the communities where they reside. Through wartime, economic upticks, financial downturns, and political activities around the nation and world, the community college has become known as a place where every human being that desires a higher education can get one.

Community colleges have been perceived as a variety of things to include as extensions of high school, places for the underprepared student, colleges for the lower and middle socioeconomic class of students, as well as institutions to advance workforce and economic development for both the community and the nation. These post-secondary institutions have experienced incredible enrollment gains and downward swings over the years depending on a

variety of factors such as the state of the economy, the political leanings of the nation, and the impact that college choice influencers have on students' college selection.

Indeed, there are a variety of things and people that may influence a high school student in their decision about if and where they will go to college. As noted in Chapter One, a handful of negative myths and stereotypes associated with the community college have been perpetuated by the media, television, and in movies. These negative stereotypes could not only be influencing the perceptions of community colleges that high school students have, but also the perceptions of people who are charged with helping high school students make decisions about college in the future. As discussed in Chapter Two, several studies have been conducted over the last 50 years that have looked at what the perceptions of community colleges are as held by high school counselors. Some studies even examined what demographic factors and other variables might influence how these perceptions are formed.

However, what has not emerged in the research to date is a deeper understanding of the *strength* of perceptions of community colleges as held by high school counselors. What perceptions of the community college do high school counselors strongly agree with and strongly disagree with? Which perceptions do high school counselors view with perhaps just a little agreement or a little disagreement? Are there existing perceptions of the community college where high school counselors find consensus among themselves? Most importantly, are there groups of high school counselors that hold perceptions of the community college that are distinguishing from other groups of counselors?

The researcher for this study aimed to answer each of these questions. While the primary research question for this study is centered on understanding what the perceptions of the community college are as held by high school counselors, it is through the Q methodology, a

deeper understanding of these perceptions will emerge. The researcher provides an explanation of the Q method in Chapter Three and describes how this study is structured within this mixed methods approach.

CHAPTER THREE: METHODOLOGY

INTRODUCTION

The research design for this study is centered on a Q methodological approach. William Stephenson developed this approach in the 1930s (Stephenson, 1935, 1936) and provided details on this approach in *The Study of Behavior: Q-technique and its Methodology* (1953). This method was used to examine high school counselors' viewpoints toward community colleges. Specifically, this study assesses the viewpoints high school counselors in Clark County, Nevada, have toward community colleges. The research question for this study is centered specifically on determining the viewpoints high school counselors within this region of Southern Nevada hold toward community colleges. Further, the researcher seeks to determine the characteristics of these viewpoints based on the results of the sorting process of an exhaustive list of statements and qualitative data from a post sort survey. This chapter illustrates the complete framework of the Q methodology approach and includes a brief overview of the methods and the reasons why the Q method was selected for this study. Further, a detailed overview of the five stages of the Q methodology is provided to include the development of the concourse and ultimately the q set, the selection process for the study participants (the *p* set), the creation of the instrument, the collection of the data, and the steps associated with the data analysis and factor interpretation.

OVERVIEW OF Q METHODOLOGY

William Stevenson (1953) developed the Q method in the 1930s as an alternative form of factor analysis to operationalize subjectivity. The Q method helps researchers to identify

different perceptions on a topic through a systematic procedure to include an analytical process

that is clearly structured (Brown, 1980; Stephenson, 1953). To get at identifying the subjectivity

of human beings as it relates to their perceptions on a given topic, participants in a Q study sort a

set of statements based on the degree to which they agree or disagree with the statement (Brown,

1993; van Exel & de Graaf, 2005; Watts & Stenner, 2012; Zabala & Pascual, 2016). The

participants must consider the strength of their perception as it relates to each statement with

respect to all the other statements. After the participants complete the sorting exercise, the

researcher conducts the data analysis by reducing all the participant responses to a small handful

of different factors. Each factor represents one perspective that embodies those who share similar

views (Brown, 1993; van Exel & de Graaf, 2005; Watts & Stenner, 2012; Zabala & Pascual,

2016).

RATIONALE FOR Q METHODOLOGY FOR THIS STUDY

The research design for this study was built using the Q methodology. Q methodology

uses both quantitative and qualitative data to explore Clark County School District (CCSD) high

school counselors' viewpoints toward community colleges. Researchers have determined that the

Q methodology is designed to determine perspectives from a given sample on a specific topic

(Brown, 1993; van Exel & de Graaf, 2005; Watts & Stenner, 2012). Given this study aimed to

identify the current viewpoints about community colleges as held by high school counselors, the

alignment in using the Q methodology was a good fit.

This study is centered on the following research question:

- What are the viewpoints held by high school counselors toward community colleges?

This research question was developed to understand the viewpoints toward community

colleges that are held by high school counselors. High school counselors are key influencers in

the post-secondary decisions made by high school students (Fowler, 1997). In many ways high school counselors have tremendous influence in a students' ability to see community colleges as a viable option for their future college education. If high school counselors play an essential role in community college recruitment, then it is important to understand the values, perceptions, and considerations high school counselors hold about community colleges.

Ultimately, the researcher's goal was to understand the viewpoints of high school counselors including their attitudes and beliefs about community colleges to better understand the perspectives of counselors. This better understanding of counselors can provide insight into why counselors guide students towards or away from pursuing community college for their higher education. Additionally, the results of this research can be used to help inform community college leaders about how best to message high school counselors and the public about community colleges, how to recruit students into the community college and to provide general societal awareness about the mission of community colleges. All of this, of course, to help increase that nation's post-secondary attainment rates.

Q METHODOLOGY

The study protocol for the Q methodology consists of six distinct stages (Brown, 1993; van Exel & de Graaf, 2005; Watts & Stenner, 2012). First, the researcher must develop a robust concourse of perception statements. The second stage requires the researcher to reduce the concourse down into a thematic representation of perceptions known as the Q-set. The third stage of the Q methodology is to identify the participants for the study, known as the *p*-set. The fourth stage includes the data collection procedure, known as the Q-sort. Following the Q-sort, the fifth stage involves the quantitative analysis to include correlations, factor analysis and factor scores. Following the quantitative methodology is stage six, a post-sort survey that the *p* set

completes as a means of garnering some qualitative data to better understand the participants' reasons behind their respective Q-sorts. A detailed account of each of the six stages of the Q methodology is noted below.

Stage One: Concourse Development

The first stage of the Q method research design is to develop the concourse of perception statements that consists of a fully representative list of all the possible attitudes and beliefs associated with the topic being explored (Brown, 1993; van Exel & de Graaf, 2005; Watts & Stenner, 2012). To develop the full concourse, the researcher conducts a thorough review of the literature on the topic and notes every perception that relates to the topic at hand (van Exel & de Graaf, 2005; Watts & Stenner, 2012). Following the literature review, to ensure that the concourse is fully representative of all the perceptions on the topic, the researcher engages in interviews and/or a focus group to further extract possible perceptions related to the topic (Brown, 2004; Stephenson, 1993; van Exel & de Graaf, 2005; Watts & Stenner, 2012).

Stage Two: Development of the Q-set

Once there is an exhaustive list of statements that make up the concourse, it is time for the researcher to select the perception statements that will go into the actual Q-set. The Q-set makes up the selected representative sample statements that are derived from the full concourse (Stephenson, 1993-94). To do this, the researcher reviews the complete concourse and identifies themes that emerge from the statements. The statements are then categorized by theme until all the statements are placed within a theme category. To finalize the Q-set, the researcher removes statements that are duplicative or redundant. Further, researchers contend that the Q-set of perception statements should ultimately include between 40 and 50 statements on the topic to ensure that the Q-set is reflective of a comprehensive list of perception statements that capture

47

the full range of possible attitudes, beliefs, and perceptions (Brown, 1994; van Exel & de Graaf, 2005; Watts & Stenner, 2012). In the end, it is important to arrive at a final Q-set that contains statements representative of each of the themes related to the topic. A snapshot of a partial Q-set is illustrated in Table 1 below.

Table 1: Sample Partial Q-set

CARD NUMBER	PERCEPTION STATEMENTS	THEME
1	Some students are too smart for community colleges.	Academic Preparation
2	A community college education is accessible to students.	Access Mission
3	Community college graduates can get appointments at U.S. Military Academies.	Community College Student Profile
4	The majority of community college students have a low socio-economic status	Community College Student Profile
5	Good community college programs attract new businesses and industries to a community	Economic Development
6	Community colleges are a significant force in economic, social, and racial equity.	Equity/Diversity/ Inclusion
7	Community colleges have student life opportunities such as athletics, student ambassadors, student government, student clubs, and organizations	Extracurricular Opportunities
8	Community colleges have dedicated faculty	Faculty Quality
9	Community colleges are an excellent value and offer a great return on the investment for students.	Financial Cost
10	Community college students have to work and earn money while in school	Flexibility
11	Community colleges are valued by a student's family/support network	Parent/Family/Friend Perceptions
12	It is common sense to go to the community college the first two years of college.	Practicality
13	Community colleges offer high quality and accessible educational opportunities.	Quality
14	Community colleges are not as rigorous as four-year universities.	Rigor
15	Highly successful people have started their education at community colleges	Society & Media Influence
16	Community colleges should not be a goal for students to attend	Society & Media Influence

CARD NUMBER	PERCEPTION STATEMENTS	THEME
17	Community college is best for kids with no direction and/or discipline	Support Structures
18	Community colleges offer a place of hope for those that think there is no hope of creating a better future for them and their families	Support Structures
19	Community college credits do not transfer to four-year universities	Transfer Preparation
20	Community colleges prepare students to be career and college ready.	Workforce/Career Preparation
21	Jobs that require an associate degree can be high-paying jobs	Workforce/Career Preparation
22	Community colleges are the same as vocational trade schools	Workforce/Career Preparation
23	Community college students are not prepared enough to get into a four-year university	Academic Preparation
24	Community colleges offer students a place for opportunity and endless possibilities.	Access Mission
25	Students who attend community colleges do not wear college-branded clothing because they are embarrassed to be attending a community college	Community College Student Profile
26	Community colleges are great options for recent high school students and returning adults alike	Community College Student Profile
27	Community colleges do not collaborate with K-12 partners as well as the universities do	Community Partner
28	Community college programs contribute positively to the economic health and economic development of the local community	Economic Development
29	Community colleges provide a great place to recruit diverse students and hire diverse employees	Equity/Diversity/Inclusion
30	Community colleges provide high quality education because the professors prioritize teaching and learning over their research interest	Faculty Quality
31	Community college can offer an opportunity to discover a passion and graduate with less debt or even debt free	Financial Cost
32	If community college education were "free," students would not find it to be valuable	Financial Cost
33	Community colleges meet students where they are in their academic journey regardless of the student's background or academic preparation	Flexibility
34	Community colleges are great; however, I would want my own child to go to a four-year college.	Parent/Family/Friend Perceptions

CARD NUMBER	PERCEPTION STATEMENTS	THEME
35	Community college is good because it is close to home and won't require living on campus	Practicality
36	Community colleges are given research grants from prestigious organizations	Quality
37	The absence of difficult admissions criteria in the community college contributes to a negative perception that students who are not academically qualified for a four-year university have to attend a community college to get a college degree because the courses are easier	Rigor
38	There is a negative stigma associated with community colleges	Society & Media Influence
39	Television shows, movies, and the media portray community colleges as "less than" the four-year university	Society & Media Influence
40	Community colleges provide a feeling of community and family for students	Support Structures
41	Community colleges provide affordable transferable credits that enable students to transfer with university studies afterwards including at Ivy league universities	Transfer Preparation
42	Community college curricula are closely aligned with workplace requirements	Workforce/Career Preparation
43	Community colleges are well suited to help our workforce retool amid a changing economy	Workforce/Career Preparation
44	Community colleges offer pathways for students with GEDs	Academic Preparation
45	Community colleges offer something for everyone	Access Mission
46	Most community college students are lazy or troubled	Community College Student Profile
47	Community colleges offer courses to a variety of student populations —including students who are serving in the military, students who are working full-time jobs, and students who are in prison.	Community College Student Profile
48	Community colleges offer programs that enrich the local community with the arts	Community Partner
49	Community colleges provide equal opportunities regardless of gender, race, ethnicity, socioeconomic status, and age	Equity/Diversity/Inclusion
50	Community college students are more diverse than most four-year university students	Equity/Diversity/Inclusion
51	Community college faculty make connections with students and know their student's story	Faculty Quality

CARD NUMBER	PERCEPTION STATEMENTS	THEME
52	It is more cost effective to start at a community college and then transfer to a four-year school	Financial Cost
53	Community colleges are the cheapest way for parents to find out if their child is ready for college	Financial Cost
54	Community colleges provide opportunities for hands-on experiences	Hands-On Learning

Stage Three: Identification of the p Set

In the Q methodology, the *p* set is the set of participants who are participating in the study. With Q methodology, the largest concern for reliability and validity is to have a fully developed perception concourse, and it is not the purpose to generalize to a larger population making these counselors ideal for this study. The participants should not be selected at random, but rather, they should be group of people who have a background in the research topic area and who would have educated opinions within the research topic area (Brown, 1993; van Exel & de Graaf, 2005; and Zabala & Pascual, 2016). Previous Q methodology researchers have indicated that the ratio of the Q-set to the *p* set be approximately 2:1 to include no more participants than the number of items in the Q-set (Watts & Stenner, 2012).

Stage Four: Q-sort Data Collection

The actual quantitative data collection is stage four of the Q methodology and is known as the Q-sort. Essentially, the participants (*p* set) are provided the Q-set as represented on individual cards with each card representing one perception statement from the Q-set. The number of cards equals the number of statements in the Q-set. Participants are provided with detailed instructions by the researcher that indicate that they should rank the randomly numbered cards according to how strongly they feel each card aligns to their individual perceptions. The

instructions should indicate to the participants that there are no right or wrong rankings and that they should use their own individual viewpoint (perception) to rank the statements.

The conditions of instruction will include a ranking scale and should require the participants' rankings to fall within a Likert-like continuum from strongly agree to strongly disagree with the "middle of the continuum containing a distribution that usually takes the form of a quasi-normal distribution" (van Exel & de Graaf, 2005, p. 6). The ranking process usually takes two distinct sorting steps. First, the participants should be encouraged to sort all the cards into one of three piles—a pile with the cards containing the statements that they generally agree with, a pile with the cards containing the statements that they generally do not agree with, and a third pile containing the cards that represent the participant's neutral stance. The second step includes a forced distribution sorting exercise where the participants can further sort the cards by rank ordering them based on the strength of alignment between the statement and their individual perception. The participants are provided with a scoring grid to note the statement card numbers at the conclusion of their Q-sort. Figure 3 shows an example of Q-sort sorting grid.

Figure 3. Sample Q-sort Grid

-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6

Strongly Disagree   Neutral   Strongly Agree
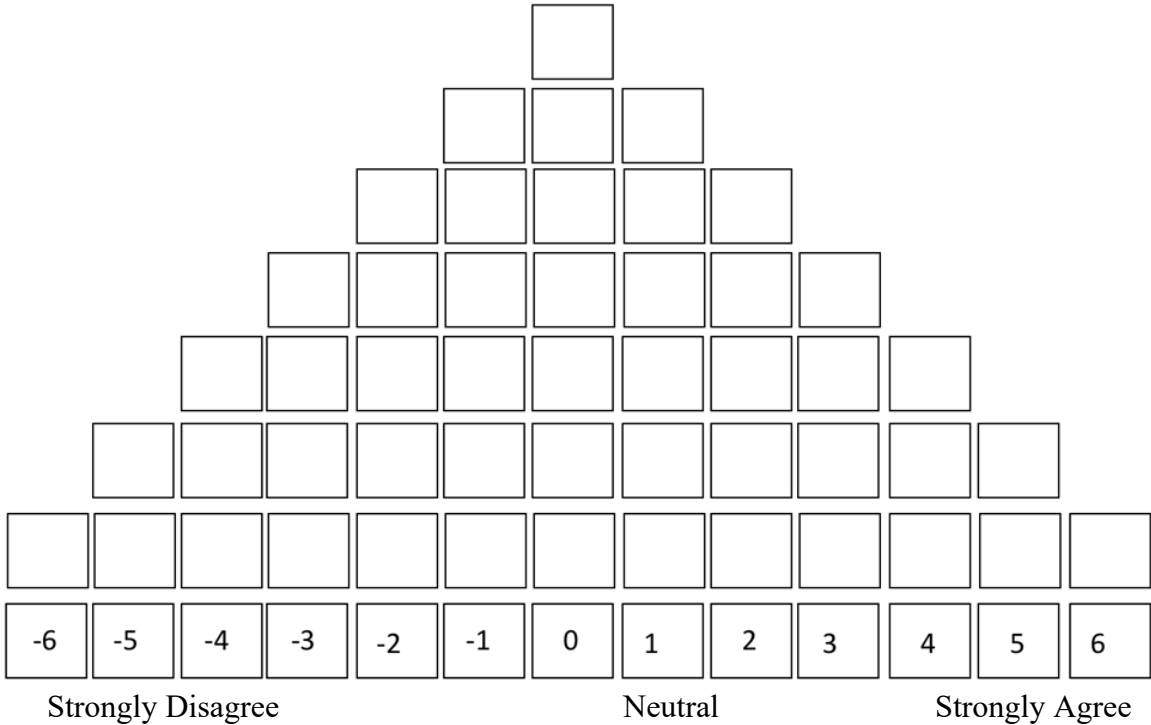
After the participants complete the Q-sort, they provide the outcome of their sort on the Q-sort grid by noting the statement card number in the appropriate box within the grid. Each box should only contain one statement card number. The number of boxes on the grid should match the number of statements in the Q-set. Figure 4 illustrates an example of a participant's completed Q-sort.

Figure 4. Sample of a Q-set Grid from a Participant Following Their Q-sort Rankings

Strongly Disagree   Neutral   Strongly Agree

−5	−4	−3	−2	−1	0	+1	+2	+3	+4	+5
5	33	29	15	8	34	22	19	1	14	6
52	12	37	51	38	50	3	39	44	31	4
	53	26	42	43	46	25	49	24	11	
	40	16	23	32	55	7	2	17	45	
		10	54	30	13	47	56	27		
			21	18	35	48	20			
				36	41	28				
					9					

Following the Q-sort, participants respond to a variety of open-ended questions that are designed to provide the researcher with a better understanding for the reasons they ranked the statements as they did. This can be done in survey form and/or through focus groups that the researcher facilitates with the *p* set. The process for this specific study is further described later.

Stage Five: Data Analysis

The data analysis includes several sequential steps. The first step in the data analysis is to ensure the data is entered correctly and completely. Then using SPSS, descriptive statistical analysis (means, standard deviations, frequencies, and percentages) is conducted on the demographics of the participants and to ensure the forced sorts are fully completed. Each individual total sort should sum to zero. Second, the collected data is entered into the KADE

software via two files, one text file with the statements from the concourse and a second CSV file with data from the completed sorts.

The third step in the data analysis is to run an initial factor analysis using principal component analysis with a varimax rotation (van Exel & de Graaf, 2005). According to Watson and Stenner (2012), it is appropriate to start with a four-factor solution. The initial scree plot and sort characteristics is examined to determine the fit of the solution. According to Brown (1993), factors with eigenvalues greater than one should be retained. Additionally, the scree plot is examined for the natural break at the elbow for the number of factors. Lastly, the percent of variance explained, number of people in each factor, and reliability is examined. Based on the factor characteristics, the total number of viewpoints to retain is identified. From that, all consensus items are identified. These are items that had no difference in their rating based on the factor they appear within.

The final factor analysis table indicates which individuals loaded significantly on each factor. The items that are rated the highest and lowest are identified for each factor. Additionally, any items that are distinguishing for each factor are identified.

A crib sheet is created for each factor that has the high, low, and distinguishing items. Additionally, the questions are also viewed for themes by factor. Based on the quantitative and qualitative data, each viewpoint is named and described.

THE Q METHODOLOGY AND THIS STUDY

CONCOURSE DEVELOPMENT

The first stage of the Q Methodology is to develop a comprehensive concourse of perception statements. For this study, the researcher engaged a variety of steps to develop a robust set of statements. First, the researcher conducted a literature review and extracted a

55

variety of perception statements regarding the various perceptions of community colleges in general. Following this activity, the researcher worked to further identify additional perception statements that were noted in a variety of popular press articles and social media posts. Next, the researcher conducted a focus group with doctoral students studying community college leadership from North Carolina State University. During this focus group session, the doctoral students were asked to share all the perceptions they could think of related to how people view community colleges. The perception statements that emerged from the focus group session were added to the concourse. At this point, there were 239 perception statements in the concourse. The researcher reviewed all the statements and noted there was a duplication of ideas present within the concourse. This duplication was a sign that the concourse was comprehensive and fully developed.

With a comprehensive concourse now developed, the researcher began to identify emerging themes within the concourse. The researcher assigned a theme to each of the 239 statements. Table 2 illustrates the complete list of themes that emerged from the analysis of the statements in the concourse.

Table 2: Themes That Emerged from the Analysis of the Statements in the Concourse

CONCOURSE DEVELOPMENT: EMERGENT THEMES	
• Rigor	• Extracurricular Activities
• Workforce / Career Preparation	• Skill Development
• Practicality	• Equity / Diversity / Inclusion mission
• Hands-on Learning	• Support Structures
• Faculty Quality	• Access Mission
• Transfer Preparation	• Academic Preparation
• Flexibility	• Society & Media Influence
• Parent / Family / Friend perceptions	• Quality
• Economic Development	• Financial Cost
• Community Partner	• Dual Enrollment
• Community College Student Profile	

To help ensure the validity of the theme assignment to each statement, the researcher asked an independent community college professor to independently review the complete concourse and to affirm or challenge the themes that were assigned to each statement. The independent reviewer completed this exercise and turned over their analysis to the researcher. The researcher cross-checked the original theme list to the list of the independent reviewer and made appropriate adjustments of theme assignment based on the suggestions of the independent reviewer. The final concourse included 239 statements that were each assigned one of 21 emergent themes.

Q-SET DEVELOPMENT

Stage two of the Q Methodology is to develop the actual Q-set. The goal is to have a Q-set that is highly representative of all the themes that emerged in the larger concourse, but not to have duplicative statements. For this study, the researcher reviewed the concourse of 239 statements and began to remove or combine statements that were duplicative in concept or premise. Upon the first review, the researcher removed 131 statements that were duplicative in nature bringing the Q-set down to 108 statements while still ensuring the list of statements represented all 21 themes.

While Q methodology scholars have noted that the final Q-set should have around 40 to 50 statements (Brown, 1994; van Exel & de Graaf, 2005; Watts & Stenner, 2012), ultimately it is more important that the final Q-set be representative of all attitudes and beliefs associated with the topic than it is to limit to a preconceived total number of statements. However, recognizing that 108 statements is a lot and that there could still be some duplicative statements represented, the researcher asked a Q methodology expert and community college leadership professor to serve as an independent reviewer of the concourse with a goal to remove any remaining

duplicate statements. The independent reviewer used five rounds of review to ultimately reduce the list from 108 statements to 75 statements. Thus, the final Q-set for this study contained 75 statements that represented 21 themes associated with people's perceptions of community colleges. The complete Q-set of 75 statements can be found in Appendix G.

P SET DEVELOPMENT

The next stage in the Q Methodology is to establish the participant sample known as the *p* set. Prior to the establishment of the *p* set and data collection, the researcher sought study approval from the Institutional Research Boards (IRB) at both Ferris State University and the Clark County School District. The study was fully approved by the IRB at both Ferris State University and Clark County School District. A copy of the approval letters from both IRBs can be found in the Appendices.

The participants in this study were high school counselors currently employed with the Clark County School District in Clark County, Nevada. A purposeful sample of participants was collected for this study. Q methodology scholars have indicated that the minimum ratio of the Q-set to the *p* set be approximately 2:1 to include no more participants than the number of items in the Q-set (Watts & Stenner, 2012). Therefore, the *p* set sample size was determined based upon the number of perception statements that were included in the final Q-sort concourse. In this study, the final Q-set contained 75 perception statements. As such, the researcher aimed to have approximately 37 high school counselors included in the *p* set.

There are 273 high school counselors within 56 high schools in the Clark County School District. Participants were identified through the CCSD directory of high school counselors and validated through the publicly available information provided by the Clark County School District via CCSD school websites. Invitation emails were sent to all 273 high school counselors

on record at these schools inviting their participation in this study. There was not a minimum of 37 participants identified via the first email within seven days, so the researcher sent out a second email with another invitation to participate. Following the second email invitation, there were only three respondents who agreed to participate in the study, so the researcher solicited the support of the Clark County District leadership who agreed to forward the initial email invitation from the researcher to all the high school counselors with a note of endorsement. This action prompted an additional 23 high school counselors to participate in the study, bringing the total number in the p set to 26.

Each participant who agreed to participate in the study received an email message with a unique participant code and unique link to the study platform (qmethodsoftware.com). Upon clicking the study link, the participant was provided with active participant consent language, participant expectations, procedures for conducting the Q-sorting activity, and instructions to complete the post-sort survey.

Q-SORT INSTRUMENTATION

Once the p set was established, the next stage of the Q Methodology requires the study participants to engage in the actual Q-sort activity as well as complete a survey containing questions related to their demographics and to provide a rationale for why they sorted the statements the way that they did. A total of 26 participants completed the Q-sort and survey. The instrument that the participants used to complete the Q-sort was an online Q-sort platform called qmethodsoftware.com and was customized by the researcher to fit the parameters of this study. This online Q-sort interface allows participants to drag and drop the perception statement cards into their chosen place on the Q-sort grid.

Participants were provided with the conditions of instructions to review first. The complete conditions of instructions can be found in Appendix D. Participants completed the online Q-sort and post-sort survey independently, in their own time over a two-week period and without the presence of the researcher. After the participant accessed the online Q-sort software and reviewed the conditions of instructions, they were presented with a comprehensive list of perception statements (Q-set). They were first asked to sort (drag and drop) the statements into one of three piles: those that they agreed with, those that they did not agree with, and those that they didn't have an opinion on. Then, using the Q-sort scoring grid provided within the online Q-sort interface, participants were asked to rate each perception statement based on how strong the statement corresponds to their actual perception. The participant rated each perception statement within the Q-set through a forced distribution with a value ranging between -6 and +6 (-6 meaning the statement does not correspond to their actual perception at all and +6 meaning there is very strong alignment between the statement and their actual perception). Ultimately, participants sorted through each perception statement attributing one of the following values based on the alignment of the statement to their actual perception: -6, -5, -4, -3, -2, -1, 0, +1, +2, +3, +4, +5, +6. Additionally, once all the participants completed the online Q-sort activity, the participants were asked to respond to some demographic questions and some questions that asked them to provide a brief rationale for why they sorted the cards the way that they did. The entire experience was designed to take no more than 30 minutes for participants to complete.

DATA ANALYSIS DESIGN

The design of the data analysis took shape through two sets of data. First, the outcome of each of the participant's Q-sort produced a quantitative distribution of the perception statements

(Q-set). Second, the narrative that emerged from the results of the participants' responses to the survey questions provided invaluable qualitative data.

As noted earlier in Chapter Three, the data analysis in the Q-method is centered on correlation and by-person factor analysis. Essentially, people with similar opinions (Q-sorts) correlate to one another as opposed to features such as participant demographics, backgrounds, and experiences.

In this study, once the participants completed their respective Q-sorts, the researcher took their rank-ordered sort of perception statements and converted them into individual arrays. These individual arrays were then intercorrelated with each of the other participants' arrays. The result is a correlation matrix that identifies the participants who sorted the statements similarly. This correlation matrix was then used to conduct a factor analysis to identify groups of data arrays that are correlated to one another. These results indicate the factors that represent groups of participants who share similar opinions.

Participants who were associated with one factor typically have things in common with one another. In contrast, they have things that differentiate themselves from others who are associated with the other factors that emerged. These factors could be related to their individual background, for example. In the end, the "final factor represents a group of individual points of view that are highly correlated with each other and uncorrelated with others" (Exel and de Graf, 2005, p. 9). For example, an individual's factor loading of 0.90 means that the participant's perception statement array is highly correlated with the factor.

SUMMARY

This study was designed based on the Q methodology and sought to examine high school counselors' viewpoints of community colleges in Clark County, Nevada. The research question

for this study was centered specifically on determining what the viewpoints of community colleges are that are held by high school counselors within this region of Southern Nevada. The methodology provides for the collection of both quantitative and qualitative data that ultimately provided an understanding of the various viewpoints associated with community colleges as held by high school counselors.

CHAPTER FOUR: FINDINGS

INTRODUCTION

The purpose of this study was to investigate how high school counselors perceive community colleges. Specifically, the Q method was used to examine the viewpoints high school counselors in Clark County, Nevada, have toward community colleges. The research question for this study is centered specifically on determining the viewpoints high school counselors within this region of Southern Nevada hold toward community colleges.

This study is centered on the following research question:

- What are the viewpoints held by high school counselors toward community colleges?

This research question was developed to understand the viewpoints toward community colleges that are held by high school counselors. High school counselors are key influencers in the post-secondary decisions made by high school students (Fowler, 1997; Mitkos & Bragg, 2008). In many ways high school counselors have tremendous influence in a students' ability to see community colleges as a viable option for their future college education. If high school counselors play an essential role in community college recruitment, then it is important to understand the values, perceptions, and considerations high school counselors hold about community colleges.

There are 273 high school counselors within 56 high schools in the Clark County School District (CCSD). Participants were identified through the CCSD directory of high school counselors and validated through the publicly available information provided by the Clark

County School District via CCSD school websites. Following the approval from the Institutional Review Boards (IRB) at both Ferris State University and at the Clark County School District, invitation emails were sent to all 273 high school counselors on record at these schools inviting their participation in this study. The participation invitation included a unique participant link to the Q-sort platform where the participant was presented with the IRB-approved research consent acknowledgment form.

Within seven days of the first participation invitation going out, only three counselors actively indicated agreement on the consent to participate form and completed the Q-sort. So, the researcher sent out a second email with another invitation to participate and CCSD leadership followed with an email of endorsement to all counselors as well. This action prompted an additional 23 high school counselors to participate in the study, bringing the total number in the p set to 26.

A detailed overview of the Q methodology was presented in Chapter Three. The prescribed methodology for data collection was followed in conducting this study. Following the participant's completion of the Q-sort and post-sort survey, the data was analyzed in order to address the research question with as much clarity and depth as possible.

This chapter begins with a brief description of the data collection process followed by the participant (p set) demographic information that was gathered through the post-sort survey. The chapter continues with the correlations that emerged between the sorts followed by a factor analysis to include the highest and lowest ranked statements in each factor (group), a list of consensus statements (those statements that are commonly ranked between each group), and the factor arrays. A detailed interpretation of each factor is also included.

DATA COLLECTION AND PARTICIPANT DEMOGRAPHICS

The following section provides the data collection and participants demographics.

DATA COLLECTION

Each participant received an email message with a unique participant code and unique link to the study platform (qmethodsoftware.com). Upon clicking the study link, the participant was provided with active participant consent language, participant expectations, procedures for conducting the Q-sorting activity, and instructions to complete the post-sort survey.

A total of 26 participants completed the Q-sort and survey. The instrument that the participants used to complete the Q-sort was an online Q-sort platform called qmethodsoftware.com and was customized by the researcher to fit the parameters of this study. As described in Chapter Three, this online Q-sort interface allows participants to drag and drop the perception statement cards into their chosen place on the Q-sort grid.

Participants were provided with the conditions of instructions to review first. Participants completed the online Q-sort and post-sort survey independently, in their own time over a two-week period, and without the presence of the researcher. After the participants accessed the online Q-sort software and reviewed the conditions of instructions, they were presented with a comprehensive list of 75 perception statements (Q-set). The participants rated each perception statement within the Q-set based on their perspectives associated with community colleges through a forced distribution with a value ranging between -6 and +6 (-6 meaning the statement does not correspond to their actual perception and +6 meaning there is very strong alignment between the statement and their perception). Immediately following the Q-sort activity, participants completed a post-sort survey where they were asked to respond to a series of demographic questions and some open-ended questions. The post-sort survey was designed to

give the researcher some qualitative data to better understand the reasoning each participant had for sorting the statements the way they did. In addition to the demographic questions, participants were asked to describe their level of past experience with community colleges and to provide a description regarding why they sorted certain statements the way that they did. The complete list of the post-sort survey questions can be found in Appendix F.

P SET DEMOGRAPHICS

The *p* set for this study included 26 participants who completed the Q-sort with 25 of the 26 participants responding to the post-sort demographic and narrative questions. It is important to note that the 25 participants who completed the post-sort questions did not all respond to every question. The demographic and narrative questions are noted in Table 3.

Table 3: Demographic and Narrative Questions

QUESTION NUMBER	QUESTIONS
1	To which gender identity do you most identify?
2	Please select your age.
3	Please select your ethnicity.
4	Please provide the name of the high school where you are currently employed as a Counselor.
5	Please select the type of high school where you are currently employed.
6	How many years have you worked in a high school setting?
7	Current employment status as a high school Counselor (full time or part time)?
8	What is the highest post-secondary degree/credential you have earned?
9	Have you ever been a student at a community college?
10	Have you ever visited or taken a tour of a community college campus?
11	Thinking back to your Q-sort, why did you place your "most agree" card under +6?
12	Thinking back to your Q-sort, why did you place your "most disagree" card under -6?
13	Thinking back to your Q-sort, were there specific statements that you had difficulty placing? Choose one and please describe your dilemma.

QUESTION NUMBER	QUESTIONS
14	Is there a statement that you would have liked to see in the sort that was not included? What would that card have said and where would you have placed it?
15	Where any components of the Q-sort procedure confusing to you? How might you suggest a remedy for the issue?
16	Please provide your email address so the researcher can contact you to arrange for a possible focus group session.
17	Do you have any additional comments you would like to share?

While the majority of the participants were female (n = 15) representing 75% of the p set, the participants were fairly diverse in terms of ethnicity and age as noted in Table 4. Of the respondents, 45% (n = 9) were Caucasian, 25%, (n = 5) were African American, 15% (n = 3) were Hispanic, 10% (n = 2) were two or more races, and 5% (n = 1) were Asian or Pacific Islander. The ages for all participants ranged from 30 to 56 years old with the average age being 43.5. All the participants had earned a minimum of a master's degree with 25% (n = 5) having earned an additional graduate level certificate, and 10% (n = 2) having earned a doctorate degree. Of the respondents, 65% (n = 13) worked as a counselor at a comprehensive high school with the remaining participants either working at a career and technical academy or a high school that serves students from special populations. When asked whether they had been a student themselves at a community college in the past, 60% (n = 12) indicated that they had. However, 95% (n = 19) had, at a minimum, visited and/or toured a community college in the past. A summary of the demographics that make up each of the four factors that emerged is noted later in this chapter.

Table 4: Demographics for All Participants

VARIABLE	FREQUENCY	PERCENTAGE
Race/Ethnicity		
Race and Ethnicity Unknown	0	0
Hispanics of any race	3	15

Variable	Frequency	Percentage
American Indian or Alaska Native	0	0
Asian or Pacific Islander	1	5
African American or Black	5	25
Caucasian	9	45
Two or more races	2	10
Gender		
Female	15	75
Male	4	20
Did Not Disclose	1	5
Highest Education Level Obtained		
Master's Degree	13	65
Master's plus Graduate Certificate	5	25
Doctorate Degree	2	10
Type of High School Employed		
Comprehensive	13	65
Career & Technical Academy	5	25
Special Population	2	10
Previous Student at a Community College		
Yes	12	60
No	8	40
Visited and/or Toured a Community College		
Yes	19	95
No	1	5

CORRELATION MATRIX, FACTOR SOLUTIONS, AND FACTOR CHARACTERISTICS

KADE and SPSS software were used to analyze the data. The first step in the data

analysis is to calculate the correlation matrix. The correlation matrix tells the researcher how

similar or dissimilar each of the individual participant's sorts are to one another. Appendix H

provides the full correlation matrix. The correlations range from .64 which indicate a strong

correlation to -.06, which indicates a weak negative relationship.

A number of factor analysis solutions were explored to determine the solution. Table 5 summarizes the number of participants that loaded significantly, total variance explained, factor loadings, and number of people on each factor. The three-factor solution explained 55% of the variance, the four-factor solution explained 60% of the variance, and the five-factor solution explained 64% of the variance. The four-factor solution was selected since there were more than one person on each factor, the higher factor loadings, and the eigenvalue being around one. Based on the scree plot illustrated in Figure 5, a visualization of the eigenvalues in relation to the number of factors indicates a break at the fourth data point indicating the four-factor solution is appropriate.

Table 5: Factor Solutions

FACTORS	SIGNIFICANT LOADS	TOTAL VARIANCE EXPLAINED	EIGENVALUE (EV)	HIGH AND LOW FACTOR LOADING	RANGE OF PEOPLE ON FACTORS
3	26	55.0%	1.608	.8146 to .4876	10 to 6
4	24	60.0%	1.449	.8103 to .4786	10 to 3
5	23	64.0%	1.298	.7905 to .5629	11 to 1

Figure 5. Scree Plot
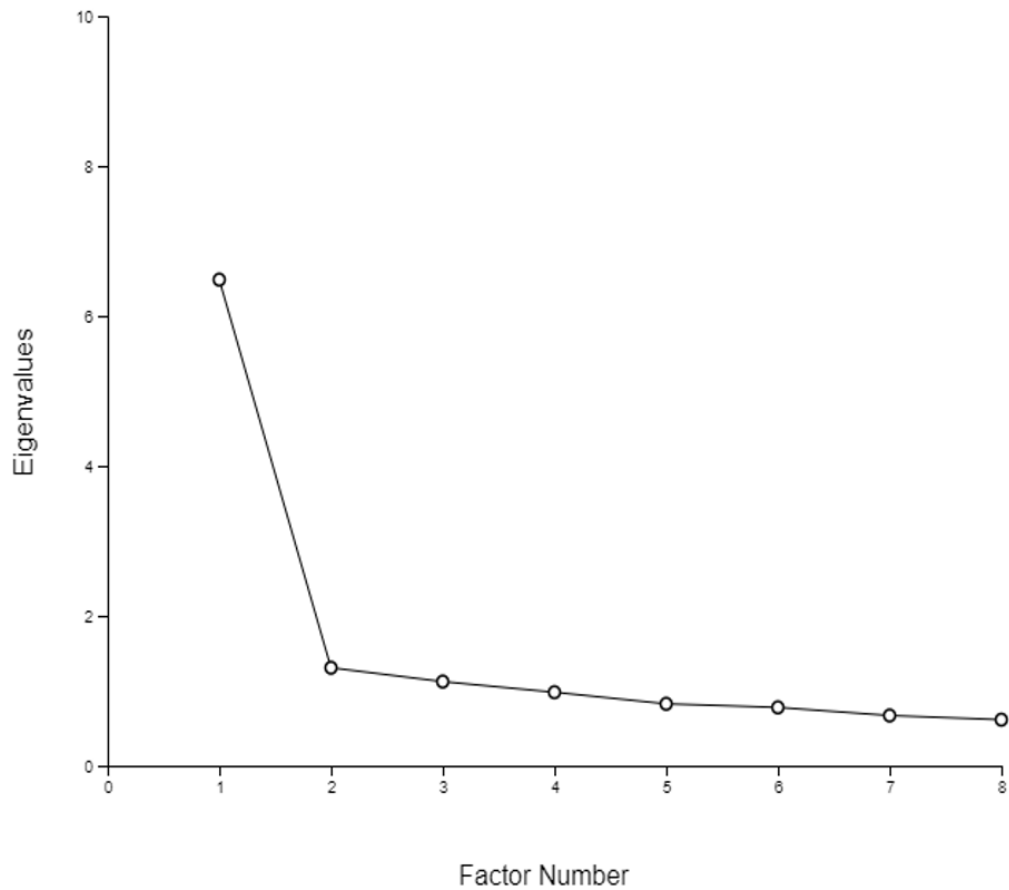
Table 6 shows the factor characteristics including how many people loaded on each factor (number of defining variables), reliability coefficient, composite reliability, and standard error of the factor z-scores.

Table 6: Factor Characteristics

	FACTOR ONE	FACTOR TWO	FACTOR THREE	FACTOR FOUR
No. of Defining Variables	10	5	4	3
Avg. Rel. Coef.	0.8	0.8	0.8	0.8
Composite Reliability	0.976	0.952	0.941	0.923
S.E. of Factor Z-scores	0.155	0.219	0.243	0.277

The factor analysis revealed a four-factor solution (see Appendix H). Based on the four-factor solution, a Varimax rotation was used to maximize the factor loadings. The four-factor solution using a varimax rotation is presented in Table 7. Factor One had 10 participants load significantly at the .05 level (indicated by the * in the table). The factor loadings ranged from .8017 to .5685. Factor Two had five individuals load significantly at the .05 level. The factor loadings ranged from .7374 to .4291. Factor Three had four individuals load significantly at the .05 level. The factor loadings ranged from .7369 to .5949. The last factor, Factor Four, had three individuals load significantly at the .05 level. The factor loadings ranged from .7994 to .6196.

Table 7: Flagged Factor Loadings for Four-factor Solution

	FACTOR ONE	FACTOR TWO	FACTOR THREE	FACTOR FOUR
P24	0.8017*	0.1320	0.2354	0.0522
P25	0.7755*	0.0938	0.2450	0.0578
P4	0.7296*	0.1813	-0.0388	-0.1032
P21	0.6632*	0.0076	0.2625	0.1055
P3	0.6094*	0.2163	0.3944	0.1297
P20	0.6042*	0.1282	0.4400	0.2447
P23	0.5920*	0.0168	0.5126	0.1636
P15	0.5750*	0.3053	-0.0479	0.1138
P13	0.5735*	0.3838	0.2907	0.1776
P7	0.5685*	0.0377	0.4927	-0.1316
P6	0.5410	0.4491	0.4782	-0.0339
P5	0.5024	0.3273	0.4479	0.0589
P19	0.4718	0.4242	0.0770	0.2765
P16	0.1094	0.7374*	0.2363	0.1177
P22	0.3818	0.6385*	0.2038	-0.1424
P8	0.1270	0.6187*	0.0957	0.3524
P12	0.4980	0.5903*	0.3031	0.0895
P9	0.0734	0.4291*	-0.0026	0.2558
P14	0.0590	0.2672	0.7369*	0.0148
P11	0.1373	0.2855	0.6351*	0.311

	FACTOR ONE	FACTOR TWO	FACTOR THREE	FACTOR FOUR
P18	0.3020	-0.2104	0.6218*	0.1951
P2	0.4588	0.2813	0.5949*	-0.0061
P17	0.3078	0.5208	0.5763	0.1188
P26	0.0859	0.1473	0.0668	0.7994*
P10	0.1210	0.0809	0.2082	0.7360*
P1	-0.0887	0.4993	0.0006	0.6196*

Table 8: Correlation between Factor Z-scores

	FACTOR ONE	FACTOR TWO	FACTOR THREE	FACTOR FOUR
Factor One	1	0.5517	0.6028	0.2405
Factor Two	0.5517	1	0.5103	0.4242
Factor Three	0.6028	0.5103	1	0.3166
Factor Four	0.2405	0.4242	0.3166	1

FACTOR ARRAYS

The factor arrays are one step in helping to interpret the factors. The factor arrays provide a view of how the average person on the factor rated each item. For example, c*ommunity colleges are not designed for exceptional students who have high SAT scores as some students are too smart for community colleges* (S1), was rated -5 (high disagreement) in Factor Three and rated a 0 (neutral) in Factor Four. The data in Table 9 allows the researcher to explore the items that were rated high, low, and distinguishing to interpret them in relation to the other factors.

Table 9: Factor Arrays

NO.	STATEMENT	FACTOR ONE	FACTOR TWO	FACTOR THREE	FACTOR FOUR
S1	Community colleges are not designed for exceptional students who have high SAT scores as some students are too smart for community colleges.	-2	-3	-5	0

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S2	If a student goes to a community college first; graduate school, law school, medical school and U.S. Military Academies appointments are an option for them later.	0	-2	2	1
S3	Community colleges offer courses to a variety of student populations--including students who are serving in the military, students who are working full time jobs, and students who are in prison.	1	-1	0	0
S4	Community college dual enrollment courses are better than high school AP courses.	0	-4	1	2
S5	Community colleges have student life opportunities such as athletics, student ambassadors, student government, student clubs and organizations.	3	-2	-2	0
S6	Community college faculty make connections with students and know their student's story.	0	-1	1	-5
S7	Community colleges are the cheapest way for parents to find out if their child is ready for college.	-1	-2	-3	-1
S8	Community colleges provide access to modern equipment, technology, tools, and faculty with real-world experience.	3	-3	-1	-2
S9	Community colleges are relatively unknown and misunderstood by prospective students and their families.	0	-3	-3	-2
S10	Community college is real college.	6	-3	0	-3
S11	Community colleges offer accelerated pathways with stackable credentials for students to earn high wages.	0	-1	-1	-1
S12	High school guidance counselors positively influence a student's perceptions of community colleges.	1	-1	-1	-2
S13	Community colleges give students personalized attention and smaller class sizes.	-1	-2	1	-4
S14	Jobs that require an Associate degree can be high-paying jobs.	1	-1	-1	1
S15	People with four-year degrees come to community colleges to develop skills for work.	-1	-3	6	0

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S16	Community colleges offer pathways for students who are underprepared; those not prepared enough to get into a four-year university.	-2	-2	4	-1
S17	The majority of community college students have a low socio-economic status because community colleges are designed for lower- and middle-class students.	-2	-3	-5	0
S18	Many community college students have responsibilities at home that they must juggle with their course work.	0	0	2	-1
S19	Dual enrollment at a community college gives students a jump start, reduces costs, and provides exposure to college.	3	0	4	5
S20	Community colleges provide opportunities for international education/study abroad and global experiences.	-1	-4	0	-4
S21	Community college faculty are teaching at the community college because they couldn't get a job at the university.	-4	-4	-4	-3
S22	Most students choose to focus on the value of education that the community college provides rather than the negative stigma associated with them.	-1	-2	2	-1
S23	Community colleges offer students service-learning opportunities.	1	0	3	-2
S24	Community college are a good choice because they are close to home and won't require living on campus.	1	0	2	1
S25	Community colleges are excellent at delivering online education.	-1	0	0	0
S26	Highly successful people have started their education at community colleges.	1	1	1	2
S27	From the standpoint of a pyramid, community colleges are at the base (bottom), less selective four-year colleges/universities are in the middle and highly selective four-year universities are at the top. With community colleges being portrayed at the bottom of the pyramid, community colleges are less than desirable to attend compared to a more selective college or university.	-3	1	-1	3

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S28	Community colleges provide students with excellent guidance.	1	0	0	-2
S29	Community colleges are the same as vocational trade schools.	-2	-5	-2	-6
S30	Career and technical education from community colleges leads to jobs which are not well regarded in society.	-3	0	0	-5
S31	Community colleges have low academic standards, and they are a good route for poor academic performers since they are not rigorous.	-5	-1	-3	1
S32	Students who attend community colleges do not wear college-branded clothing because they are embarrassed to be attending a community college and don't carry the pride of a four-year college.	-4	-4	-2	1
S33	While a large number of students attend community colleges with a goal of earning a college degree, few actually do.	-5	-2	-3	3
S34	The community college does not provide the "college experience."	-4	-1	-2	2
S35	Community colleges are an excellent value, offer a great return on the investment for students, and allow students to graduate with less debt.	2	4	3	2
S36	Many community college students have to work and earn money while in school.	0	2	2	2
S37	Community colleges are valued by a student's family/support network.	-1	2	3	1
S38	Community colleges are more practical than a university experience.	-2	-2	3	-2
S39	The absence of difficult admissions criteria in the community college contributes to a negative perception that students who are not academically qualified for a four-year university have to attend a community college to get a college degree because the courses are easier.	-2	0	-1	4
S40	Community colleges should not be a goal for students to attend.	-3	-1	-4	-1

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S41	Community colleges offer a place of hope for those that think there is no hope of creating a better future for themselves and their families.	2	2	4	3
S42	Community colleges provide affordable transferable credits that enable students to transfer with university studies afterwards including at Ivy league universities.	1	0	2	0
S43	Community college curriculum are closely aligned with workplace requirements to prepare students for careers that are critical in developing the workforce of the future.	3	3	1	1
S44	Community colleges prepare students for high skill, in demand jobs with family sustainable wages.	4	2	3	3
S45	A community college education is accessible to all, they meet students where they are regardless of academic preparation and background and offer students endless possibilities for everyone.	4	2	3	4
S46	Community colleges are great options for recent high school students and all students should be told about the option.	5	4	5	5
S47	Community colleges do not collaborate with K-12 partners as well as the universities do.	-3	-1	-3	-3
S48	Community colleges offer programs that enrich the local community with the arts.	2	1	0	-1
S49	Good community college programs attract new businesses and industries to a community and contribute positively to the economic health and economic development of the local community.	3	1	2	1
S50	Community colleges offer work-based learning opportunities like internships and apprenticeships.	4	2	0	2
S51	You get what you pay for with a community college—lower price, lower quality and if community college education were "free," students would not find it be valuable.	-4	-5	-5	-3
S52	Community colleges offer schedules that are more flexible for students.	0	4	2	3

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S53	Community colleges are great; however, I would want my own child to go to a four-year college.	-2	1	-4	5
S54	Community colleges offer high quality educational opportunities that transforms lives.	5	3	5	0
S55	The community college student experience is closer to high school than college.	-3	1	-2	2
S56	There is a negative stigma associated with community colleges and students perceive them as the last resort option.	1	0	-1	6
S57	Community colleges provide a feeling of community and family for students.	2	1	-1	4
S58	Community college transfer students are prepared for college and just as successful in completing their bachelor's degree as students that start at a four-year school.	2	2	5	4
S59	Community colleges provide options for students to advance in their careers and are well suited to help our workforce re-tool amid a changing economy.	2	5	4	4
S60	Community college provides a pathway to science, technology, engineering, and math degrees & careers.	4	1	-2	0
S61	Community colleges are primarily a place for adults who are returning to school.	-3	0	0	-3
S62	Most community college students have lack of direction, wasted time in high school, had discipline issues, are lazy/troubled.	-5	-5	-4	0
S63	Community colleges are a significant force in economic, social, and racial equity and are more diverse than four-year universities because they provide equal opportunities regardless of gender, race, ethnicity, socioeconomic status, and age.	0	1	-3	1
S66	Community colleges provide opportunities for hands on experiences.	3	3	1	2
S67	Community college students are a failure for their parents, family, and friends.	-6	-6	-6	-3
S68	Community colleges are given research grants from prestigious organizations.	0	1	-1	-4

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S69	A community college education provides a broad basis of soft skills and skills that are transferrable to work.	2	4	1	1
S70	Television shows, movies and the media portray community colleges as "less than" the four-year university.	-1	3	1	3
S71	Community colleges are more agile and meet student needs better than four-year universities.	-2	-1	-2	-5
S72	Community colleges offer an easier transition for students than going to a four-year school right out of high school.	0	5	1	-1
S73	Community colleges have strong connections with business and industry leaders which help students get jobs because they value community college graduates.	5	2	0	0
S74	Community colleges offer the quickest pathways to good paying jobs.	-1	3	-1	-1
S75	Community colleges provide opportunities to meet diverse students (race, age, financial).	2	5	1	1

CONSENSUS STATEMENTS

While the factors are delineated through a quantitative analysis of the data, the actual statements that emerge within each factor group must be further interpreted to identify the definable themes by factor group. Consensus statements are those statements that are ranked very similarly across all factor groups (van Exel & de Graf, 2005). The consensus statements provide the researcher with a deeper understanding of the perceptions of community colleges that are similar across all the factor groups. In contrast, statements that are ranked much differently between the factors are noted as distinguishing statements. The distinguishing statements will be further discussed later in this chapter.

The Q methodology prescribes the use of factor analysis for the consensus statements to emerge. The consensus statements for this study were identified in the output from the KADE

software and are items that do not have statistically significant differences across factors. While there were zero statements that were ranked exactly the same by all four factors, there were 12 statements that were not statistically different across the factors. The analysis of the consensus statements and the distinguishing statements provides the researcher with a deeper understanding of each factor—with a focus on what makes the factors similar and what makes them different. Consensus statements can be viewed as positive (in agreement), negative (in disagreement), or neutral (neither rated high or low).

There were 12 consensus statements. Statement 21 (*Community college faculty are teaching at the community college because they couldn't get a job at the university*) is noted as a consensus statement with all four factors noting disagreement with this statement. Statement 44 (*Community colleges prepare students for high skill, in demand jobs with family sustainable wages)* is also noted as a consensus statement with all four factors indicating strong agreement. Statement 46 (*Community colleges are great options for recent high school students and all students should be told about the option*) was another consensus statement with all four factors in agreement. Other consensus statements include Statement 7 (*Community colleges are the cheapest way for parents to find out if their child is ready for college*), Statement 18 (*Many community college students have responsibilities at home that they must juggle with their course work*), Statement 24 (*Community college are a good choice because they are close to home and won't require living on campus*), Statement 25 (*Community colleges are excellent at delivering online education*), Statement 26 (*Highly successful people have started their education at community colleges*), Statement 42 (*Community colleges provide affordable transferable credits that enable students to transfer with university studies afterwards including at Ivy league universities*), Statement 45 (*A community college education is accessible to all, they meet*

students where they are regardless of academic preparation and background and offer students

endless possibilities for everyone), Statement 49 (*Good community college programs attract new*

businesses and industries to a community and contribute positively to the economic health and

economic development of the local community), and Statement 51 (*You get what you pay for with*

a community college—lower price, lower quality and if community college education were

"free," students would not find it to be valuable). A full account of how each factor group rated

each of these consensus statements is noted in Table 10. The distinguishing statements for each

factor group are provided in the next section.

Table 10: Consensus Statements

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S7	Community colleges are the cheapest way for parents to find out if their child is ready for college.	-1	-2	-3	-1
S18	Many community college students have responsibilities at home that they must juggle with their course work.	0	0	2	-1
S21	Community college faculty are teaching at the community college because they couldn't get a job at the university.	-4	-4	-4	-3
S24	Community college are a good choice because they are close to home and won't require living on campus.	1	0	2	1
S25	Community colleges are excellent at delivering online education.	-1	0	0	0
S26	Highly successful people have started their education at community colleges.	1	1	1	2
S42	Community colleges provide affordable transferable credits that enable students to transfer with university studies afterwards including at Ivy league universities.	1	0	2	0
S44	Community colleges prepare students for high skill, in demand jobs with family sustainable wages.	4	2	3	3

NO.	STATEMENT	FACTOR ONE	FACTOR TWO	FACTOR THREE	FACTOR FOUR
S45	A community college education is accessible to all, they meet students where they are regardless of academic preparation and background and offer students endless possibilities for everyone.	4	2	3	4
S46	Community colleges are great options for recent high school students and all students should be told about the option.	5	4	5	5
S49	Good community college programs attract new businesses and industries to a community and contribute positively to the economic health and economic development of the local community.	3	1	2	1
S51	You get what you pay for with a community college—lower price, lower quality and if community college education were "free," students would not find it to be valuable.	-4	-5	-5	-3

DISTINGUISHING STATEMENTS

The statements that are ranked significantly different (higher or lower between the factor groups) are known as distinguishing statements. It is through the analysis of the distinguishing statements that the researcher can begin to see the pattern of thoughts that are specific to each of the factor groups (Brown, 2004). These distinguishing statements help the researcher understand the unique perceptions that are held about community colleges for each factor group.

Factor One had 18 distinguishing statements; Factor Two had 15 distinguishing statements; Factor Three had 13 distinguishing statements; and Factor Four had 18 distinguishing statements. The four factor groups are described next to include an analysis of the demographics of the participants who are part of each factor, a description of the distinguishing statements for each factor, and an accounting of some of the qualitative feedback provided by participants

within each factor. The four factor groups represent the unique perspectives of the participants. Factors in this case are groups of individuals with like perspectives.

FACTOR ONE: STRONGLY VIEW COMMUNITY COLLEGES AS REAL COLLEGES

The first group, derived from Factor One, included 10 participants and accounted for 23% of the variance. Of the 26 respondents, 38.5% (n = 10) of the *p* set loaded on Factor One. The loadings for this factor ranged from .8017 to .5685. This group had an average age of 46.5 (SD = 5.86) and worked in a high school setting on average 10.4 (SD = 3.85) years. Of the respondents in Factor One, 80% (n = 8) identified as female. Of those who loaded into this factor, 40% (n = 4) indicated that they were African American, 40% (n = 4) indicated they were Caucasian, and 20% (n = 2) indicated two or more races. Everyone in Factor One had a minimum of a master's degree, 30% (n = 3) had earned an additional graduate certificate, and one (10%) had earned a Doctorate. Half of the counselors reported working at a comprehensive high school (n = 5), 30% (n = 3) worked as a counselor at a Career and Technical Academy, and 20% (n = 2) worked as a counselor at a high school for special populations. In this factor, the majority of the respondents, 70% (n = 7), reported they have attended a community college as a student in the past, and 100% (n = 10) reported they had visited or toured a community college in the past. The demographics for this group are presented in Table 11.

Table 11: Demographics for Factor One

VARIABLE	FREQUENCY	PERCENTAGE
Race/Ethnicity		
Race and Ethnicity Unknown	0	0
Hispanics of any race	0	0
American Indian or Alaska Native	0	0
Asian or Pacific Islander	0	0
African American or Black	4	40

Variable	Frequency	Percentage
Caucasian	4	40
Two or more races	2	20
Gender		
Female	2	20
Male	8	80
Did not Disclose	0	0
Highest Education Level Obtained		
Master's Degree	6	60
Master's Degree Plus Graduate Certificate	3	30
Doctorate Degree	1	10
Type of High School Employed		
Comprehensive	5	50
Career & Technical Academy	3	30
Special Population	2	20
Previous Student at a Community College		
Yes	7	70
No	3	30
Visited and/or Toured a Community College		
Yes	10	100
No	0	0

Factor One had 18 statements that were distinguishing from the other factors. Of those statements, seven were positive, seven were negative, and four were neutral. There were four distinguishing statements that participants in Factor One rated with agreement. The first statement, *Community college is a real college,* was rated the highest for this factor, while Factors Two and Four viewed this as negative and Factor Three viewed it as neutral. Additionally, those in Factor One rated *Community colleges provide access to modern equipment, technology, tools, and faculty with real-world experiences* high with agreement, while Factors Two, Three, and Four indicated disagreement with this statement. Participants in this group rated with agreement that *Community colleges have student life opportunities, such as*

athletics, student ambassadors, student government, student clubs, and organizations. Factor Groups Two and Three noted disagreement with this statement and Factor Four indicated a neutral stance. Lastly, this group perceived that *High school guidance counselors positively influence a student's perceptions of community colleges,* while Factors Two, Three, and Four noted slight disagreement with this statement.

In contrast, there were seven distinguishing statements that Factor One noted disagreement with. These statements included, (1) *television shows, movies, and the media portray community colleges as "less than" the four-year university*, (2) *community colleges are great; however, I would want my own child to go to a four-year college*, (3) *the absence of difficult admissions criteria in the community college contributes to a negative perception that students who are not academically qualified for a four-year university have to attend a community college to get a college degree because the courses are easier*, (4) *from the standpoint of a pyramid, community colleges are at the base (bottom), less selective four-year colleges/universities are in the middle, and highly selective four-year universities are at the top*, (5) *with community colleges being portrayed at the bottom of the pyramid, community colleges are less than desirable to attend compared to a more selective college or university*, (6) *career and technical education from community colleges leads to jobs which are not well regarded in society*, (7) *the community college student experience is closer to high school than college* and *the community college does not provide the "college experience."*

Of those, this group noted the highest disagreement with the statement, *the community college does not provide the college experience,* while Factor Four agreed with this statement and Factors Two and Three slightly disagreed with this statement. Further, those in Factor One disagreed with *The community college student experience is closer to high school than college,*

while Factors Two and Four agreed with this statement and Factor Three showing slight disagreement. Additionally, Factor One indicated disagreement with *Community colleges are great; however, I would want my own child to go to a four-year college*. Factor Four strongly agreed with this statement, while Factor Two slightly agreed and Factor Three strongly disagreed. Finally, Factor One strongly disagreed with the statement that *From the standpoint of a pyramid, community colleges are at the base (bottom), less selective four-year colleges/ universities are in the middle, and highly selective four-year universities are at the top. With community colleges being portrayed at the bottom of the pyramid, community colleges are less than desirable to attend compared to a more selective college or university.* In contrast, Factor Four strongly agreed with this statement while Factor Two showed slight agreement and Factor Three indicated slight disagreement. Table 12 illustrates all the distinguishing statements for Factor One.

Participants in the study were given the opportunity to provide qualitative feedback through a post-sort survey. This qualitative feedback helped to further illustrate how each factor group perceives community colleges. When asked what statement they agreed to the most, one participant in Factor One indicated, "community college is a real college…this is an undeniable truth. It had to be a +6." A sampling of additional qualitative feedback from the participants who made up Factor Group One included, "Community colleges are a great opportunity for all students. Counselors should be the ones to present students with the most options as possible so they can make the choice for themselves," and "I think all students should be exposed to community college course offerings, the economic value, and smaller (in most cases) class sizes." Clearly Factor Group One finds that community colleges are real colleges, and feel they offer all students opportunities to excel while saving money and enjoying smaller class sizes.

Table 12: Distinguishing Statements for Factor One

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S10	Community college is real college	6	-3	0	-3
S60	Community college provides a pathway to science, technology, engineering, and math degrees & careers.	4	1	-2	0
S5	Community colleges have student life opportunities such as athletics, student ambassadors, student government, student clubs and organizations.	3	-2	-2	0
S8	Community colleges provide access to modern equipment, technology, tools, and faculty with real-world experience.	3	-3	-1	-2
S48	Community colleges offer programs that enrich the local community with the arts.	2	1	0	-1
S12	High school guidance counselors positively influence a student's perceptions of community colleges.	1	-1	-1	-2
S23	Community colleges offer students service-learning opportunities.	1	0	3	-2
S11	Community colleges offer accelerated pathways with stackable credentials for students to earn high wages.	0	-1	-2	-2
S36	Many community college students have to work and earn money while in school.	0	2	2	2
S52	Community colleges offer schedules that are more flexible for students.	0	4	2	3
S9	Community colleges are relatively unknown and misunderstood by prospective students and their families.	0	-3	-3	-2
S70	Television shows, movies and the media portray community colleges as "less than" the four-year university.	-1	3	1	3
S53	Community colleges are great; however, I would want my own child to go to a four-year college.	-2	1	-4	5

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S39	The absence of difficult admissions criteria in the community college contributes to a negative perception that students who are not academically qualified for a four-year university have to attend a community college to get a college degree because the courses are easier.	-2	0	-1	4
S27	From the standpoint of a pyramid, community colleges are at the base (bottom), less selective four-year colleges/universities are in the middle and highly selective four-year universities are at the top. With community colleges being portrayed at the bottom of the pyramid, community colleges are less than desirable to attend compared to a more selective college or university.	-3	1	-1	3
S30	Career and technical education from community colleges leads to jobs which are not well regarded in society.	-3	0	0	-5
S55	The community college student experience is closer to high school than college.	-3	1	-2	2
S34	The community college does not provide the "college experience."	-4	-1	-2	2

To further understand this factor, the highest and lowest ranked items by this group were examined. The highest ranked item for Factor One was *Community college is real college* (Statement 10). This statement is certainly the defining perception for Factor One. Additionally, participants that made up Factor One noted significant agreement with the idea that *Community colleges offer high quality educational opportunities that transform lives* (Statement 54), *Community colleges are great options for recent high school students and all students should be told about the option (Statement 46),* and the relational value and workforce connections that community colleges bring through *strong connections with business and industry leaders which help students get jobs because they value community college graduates (*Statement 73*).*

87

The lowest ranked (most disagreed) statement from Factor One was *Community college students are a failure for their parents, family, and friends* (Statement 67). Additional statements that Factor One disagreed with the most included *Community colleges have low academic standards, and they are a good route for poor academic performers since they are not rigorous* (Statement 31) and *Most community college students have lack of direction, wasted time in high school, had discipline issues, are lazy/troubled* (Statement 62). Table 13 illustrates the highest and lowest ranked items for Factor One.

Table 13: Highest and Lowest Ranked Items for Factor One

RANK	NO.	STATEMENT
6 (Highest)	S10	Community college is real college.
5	S54	Community colleges offer high quality educational opportunities that transforms lives.
5	S46	Community colleges are great options for recent high school students and all students should be told about the option.
5	S73	Community colleges have strong connections with business and industry leaders which help students get jobs because they value community college graduates.
-6 (Lowest)	S67	Community college students are a failure for their parents, family, and friends.
-5	S33	While a large number of students attend community colleges with a goal of earning a college degree, few actually do.
-5	S31	Community colleges have low academic standards, and they are a good route for poor academic performers since they are not rigorous.
-5	S62	Most community college students have lack of direction, wasted time in high school, had discipline issues, are lazy/troubled.

Figure 6 is snapshot of the composite Q-sort for Factor One. This represents a model sort for Factor One and illustrates how each statement was ranked across the +6 to -6 range for this factor group.

Figure 6. Composite Q-Sort for Factor One

-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
"Community college students are a failure for their parents,	Community colleges have low academic standards and they are a good	Community college faculty are teaching at the community college because	Community colleges are primarily a place for adults who are	Community colleges are more practical than a University	Community colleges are valued by a student's family/support	**▶ Community colleges offer accelerated pathways with stackable	Community colleges provide affordable transferable	Community college transfer students are prepared for	"Dual enrollment at a community college gives students a jump	"A community college education is accessible to all, they meet	Community colleges offer high quality educational opportunities	**▶ Community college is real college.
	"While a large number of students attend community colleges with a	**◀ The community college does not provide the "college experience."	**◀ "From the standpoint of a pyramid, community colleges are at	Community colleges offer pathways for students who are	Community colleges offer the quickest pathways to good paying	Community college dual enrollment courses are better than	"Community colleges offer courses to a variety of student	**▶ Community colleges offer programs that enrich the local community	Community colleges provide opportunities for hands on	**▶ "Community college provides a pathway to science,	Community colleges are great options for recent high school students	
	"Most community college students have lack of direction,	"You get what you pay for with a community college--lower	** Career and technical education from community colleges leads	Community colleges are the same as vocational trade schools.	Community colleges provide opportunities for	**◀ Many community college students have to work and earn money	▶ High school guidance counselors positively influence a	A community college education provides a broad basis of	Good community college programs attract new businesses and	"Community colleges prepare students for high skill, in	Community colleges have strong connections with business	
		Students who attend community colleges do not wear	Community colleges do not collaborate with K-12 partners as	* "Community colleges are great, however I would want my own child to go	Most students choose to focus on the value of education that	**◀ Community colleges offer schedules that are more flexible for	Jobs that require an Associate degree can be high-paying	Community colleges provide options for students to advance in	**▶ "Community colleges have student life opportunities such as	Community Colleges offer work-based learning opportunities		
			Community colleges should not be a goal for students to attend.	Community colleges are more agile and meet student needs better	Community colleges give students personalized attention and	Community colleges offer an easier transition for students than	* Community colleges offer students service learning	"Community colleges provide opportunities to meet diverse	Community college curriculum are closely aligned with workplace			
			**◀ The community college student experience is closer to high school than	**◀ The absence of difficult admissions criteria in the community	Community colleges have dedicated faculty with advanced	**▶ Community colleges are relatively unknown and misunderstood	Community college are a good choice because they are close to	Community colleges offer a place of hope for those that think there is	**▶ "Community colleges provide access to modern equipment,			
				Community colleges are not designed for exceptional students who	Community colleges are excellent at delivering online	"If a student goes to a community college first; graduate	There is a negative stigma associated with community colleges and	"Community colleges are an excellent value, offer a great return on				
				The majority of community college students have a low	**◀ "Television shows, movies and the media portray community	Many community college students have responsibilities at home that	Community colleges provide students with excellent	Community colleges provide a feeling of community and				
					Community colleges are the cheapest way for parents to find out if	Community college faculty make connections with students	It is common sense to go to the community college the first two					
					People with 4-year degrees come to community colleges to	"Community colleges are a significant force in economic,	Highly successful people have started their education at					
						Community colleges are given research grants from prestigious						

Legend
- ✱ Distinguishing statement at P< 0.05
- ✱✱ Distinguishing statement at P< 0.01
- ▶ z-Score for the statement is higher than in all other factors
- ◀ z-Score for the statement is lower than in all other factors

FACTOR TWO: COMMUNITY COLLEGES ARE A GOOD STARTING PLACE FOR STUDENTS

Factor Two included five participants and accounted for 14% of the variance explained by the four-factor solution. Of the 26 respondents, 19.2% (n = 5) of the *p* set significantly loaded on Factor Two. The loadings for this factor ranged from .7374 to .4291. This group had an

average age of 43.7 (SD = 7.23) and worked in a high school setting on average 12.8 (SD = 7.26) years.

Of the respondents within Factor Two, 80% (n = 4) identified as female. Of the respondents, 40% (n = 2) were Hispanic, 40% (n = 2) were Caucasian, and 20% (n = 1) indicated they were Asian/Pacific Islander. The highest educational credential earned by 100% (n = 5) of the participants in Factor Two was a master's degree. No one in Factor Two had earned any additional graduate level educational credentials. Of the counselors in this group, 60% (n = 3) worked at a comprehensive high school and 40% (n = 2) worked at a career and technical academy. None of the participants in Factor Two worked as a counselor at a high school for special populations. In contrast to Factor Group One where a majority of the participants attended a community college as a student, only 20% (n = 1) of the participants within Factor Two had attended a community college as a student in the past and only 80% (n = 4) indicated they have ever visited or toured a community college in the past. The demographics for this group are presented in Table 14.

Table 14: Demographics for Factor Two

VARIABLE	FREQUENCY	PERCENTAGE
Race/Ethnicity		
Race and Ethnicity Unknown	0	0
Hispanics of any race	2	40
American Indian or Alaska Native	0	0
Asian or Pacific Islander	1	20
African American or Black	0	0
Caucasian	2	40
Two or more races	0	0
Gender		
Female	4	80
Male	1	20
Did not Disclose	0	0

Variable	Frequency	Percentage
Highest Education Level Obtained		
Master's Degree	5	100
Master's Degree Plus Graduate Certificate	0	0
Doctorate Degree	0	0
Type of High School Employed		
Comprehensive	3	60
Career & Technical Academy	2	40
Special Population	0	0
Previous Student at a Community College		
Yes	1	20
No	4	80
Visited and/or Toured a Community College		
Yes	4	80
No	1	20

Factor Two had 15 statements that were distinguishing from the other factors. Of those statements, nine were positive, five were negative, and one was neutral. Table 15 shows all the distinguishing statements. Factor Two rated four distinguishing statements with high agreement. The highest (most agree) rated statement from individuals in Factor Two was that *It is common sense to go to the community college the first two years. It is more cost effective to start at a community college and then transfer to a four-year school.* Factor Four slightly disagreed with this statement, Factor One slightly agreed, and Factor Three was neutral. Additionally, Factor Two rated *Community colleges provide opportunities to meet diverse students (race, age, financial)* with high agreement, while the other three factor groups noted this statement with very slight agreement. Those in Factor Two indicated high agreement with the card that stated *Community colleges offer an easier transition for students than going to a four-year school right out of high school*, while Factor Four indicated disagreement with this statement. Those in Group Two agreed with the statement that *Community colleges have dedicated faculty with advanced*

91

degrees that offer high quality education since they prioritize teaching and learning over research, which was different than those in Factor Group Four who indicated they disagreed with this statement.

In contrast, there were five distinguishing statements that Factor Two noted disagreement with. These statements included (1) *Community colleges have low academic standards, and they are a good route for poor academic performers since they are not rigorous;* (2) *Community college faculty make connections with students and know their student's story;* (3) *if a student goes to a community college first, graduate school, law school, medical school, and U.S. military academies appointments are an option for them later;* (4) *people with four-year degrees come to community colleges to develop skills for work*, and (5) *community college dual enrollment courses are better than high school AP courses.*

Of the distinguishing statements, Factor Two noted the highest disagreement with *Community college dual enrollment courses are better than high school AP courses,* while Factors Three and Four slightly agreed with this statement and Factor One noted this as neutral. Further, Factor Two disagreed with *People with four-year degrees come to community colleges to develop skills for work,* while Factor Three rated this statement as strongly agree, Factor One being in slight disagreement, and Factor Four indicating a neutral stance with this statement. The rankings of these distinguishing statements by Factor Two indicate that they value the community college as a good starting place for students to begin their college journey. Table 15 illustrates all the distinguishing statements for Factor Two.

As noted earlier, participants in the study were given the opportunity to provide qualitative feedback through a post-sort survey. When asked why they rated the statement they most agreed with, one participant in Factor Two indicated, "I love community college. I started

at a community college, and it was the best choice for me, and I believe it can also be a great choice for many of our students." Another comment from a participant in Factor Group Two noted, "I believe that some people have a negative connotation about community college because they have never attended a community college; so, they don't understand or know about all of the benefits that come with what is offered there." These are interesting comments given that the majority of the participants in Factor Two did not attend a community college as a student. In any case, Factor Group Two finds community colleges to be a cost-effective, quality option and a great choice for students to get their start in college.

Table 15: Distinguishing Statements for Factor Two

NO.	STATEMENT	FACTOR ONE	FACTOR TWO	FACTOR THREE	FACTOR FOUR
S65	It is common sense to go to the community college the first two years. It is more cost effective to start at a community college and then transfer to a four-year school.	1	6	0	-1
S75	Community colleges provide opportunities to meet diverse students (race, age, financial).	2	5	1	1
S72	Community colleges offer an easier transition for students than going to a four-year school right out of high school.	0	5	1	-1
S64	Community colleges have dedicated faculty with advanced degrees that offer high quality education since they prioritize teaching and learning over research.	-1	3	-1	-2
S54	Community colleges offer high quality educational opportunities that transforms lives.	5	3	5	0
S74	Community colleges offer the quickest pathways to good paying jobs.	-1	3	-1	-1
S63	Community colleges are a significant force in economic, social, and racial equity and are more diverse than four-year universities because they provide equal opportunities regardless of gender, race, ethnicity, socioeconomic status, and age.	0	1	-3	-1

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S60	Community college provides a pathway to science, technology, engineering, and math degrees & careers.	4	1	-2	0
S53	Community colleges are great; however, I would want my own child to go to a four-year college.	-2	1	-4	5
S19	Dual enrollment at a community college gives students a jump start, reduces costs, and provides exposure to college.	3	0	4	5
S31	Community colleges have low academic standards, and they are a good route for poor academic performers since they are not rigorous.	-5	-1	-3	1
S6	Community college faculty make connections with students and know their student's story.	0	-1	1	-5
S2	If a student goes to a community college first, graduate school, law school, medical school and U.S. Military Academies appointments are an option for them later.	0	-2	2	1
S15	People with four-year degrees come to community colleges to develop skills for work.	-1	-3	6	0
S4	Community college dual enrollment courses are better than high school AP courses.	0	-4	1	2

An additional analysis of Factor Two was to look at the highest and lowest ranked items by this factor group. The highest ranked item for Factor Two was *It is common sense to go to the community college the first two years. It is more cost effective to start at a community college and then transfer to a four-year school* (Statement 65). This statement is certainly the defining perception for Factor Two. Additionally, participants that made up Factor Two noted significant agreement with the idea that *Community colleges provide opportunities to meet diverse students (race, age, financial)* (Statement 75), *Community colleges offer an easier transition for students than going to a four-year school right out of high school* (Statement 72), and *Community*

colleges provide options for students to advance in their careers and are well suited to help our workforce retool amid a changing economy (Statement 59).

The lowest ranked (most disagreed) statement from Factor Two was *Community college students are a failure for their parents, family, and friends* (Statement 67). Additional statements that Factor Two disagreed with the most included, *You get what you pay for with a community college—lower price, lower quality, and if community college education were "free," students would not find it be valuable* (Statement 51) and *Most community college students have lack of direction, wasted time in high school, had discipline issues, are lazy/troubled* (Statement 62). Factor Two perceived the community college to be a high quality, affordable choice for all students to begin their college career. Table 16 illustrates the highest and lowest ranked items for Factor Two.

Table 16: Highest and Lowest Ranked Items for Factor Two

RANK	NO.	STATEMENT
6 (Highest)	S65	It is common sense to go to the community college the first two years. It is more cost effective to start at a community college and then transfer to a four-year school.
5	S75	Community colleges provide opportunities to meet diverse students (race, age, financial).
5	S72	Community colleges offer an easier transition for students than going to a four-year school right out of high school.
5	S59	Community colleges provide options for students to advance in their careers and are well suited to help our workforce retool amid a changing economy.
-6 (Lowest)	S67	Community college students are a failure for their parents, family, and friends.
-5	S29	Community colleges are the same as vocational trade schools.
-5	S51	You get what you pay for with a community college—lower price, lower quality and if community college education were "free," students would not find it be valuable.
-5	S62	Most community college students have lack of direction, wasted time in high school, had discipline issues, are lazy/troubled.

Figure 7 is snapshot of the composite Q-sort for Factor Two. This represents a model sort for Factor Two and illustrates how each statement was ranked across the +6 to -6 range for this factor group.

Figure 7. Composite Q-sort for Factor Two

-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
"Community college students are a failure for their parents,	Community colleges are the same as vocational trade schools.	**◄ Community college dual enrollment courses are better than	Community colleges are relatively unknown and misunderstood	Most students choose to focus on the value of education that the community	Community colleges are more agile and meet student needs better	Many community college students have esponsibilities at home that	Highly successful people have started their education at	Community college transfer students are prepared for	Community colleges provide opportunities for hands on	Community colleges are great options for recent high school students	**▶ "Community colleges provide opportunities to meet diverse	**▶ It is common sense to go to the community college the first two
	"You get what you pay for with a community college--lower	Students who attend community colleges do not wear	*◄ People with 4-year degrees come to community colleges to	Community colleges give students personalized attention and	Community colleges offer accelerated pathways with stackable	**◄ "Dual enrollment at a community college gives students a jump	*▶ "Community colleges are a significant force in economic,	"A community college education is accessible to all, they meet	**▶ Community colleges have dedicated faculty with advanced	Community colleges offer schedules that are more flexible for	**▶ Community colleges offer an easier transition for students than	
	"Most community college students have lack of direction,	Community colleges provide opportunities for	The majority of community college students have a low	Community colleges offer pathways for students who are	High school guidance counselors positively influence a	Community colleges are a good choice because they are close to	"From the standpoint of a pyramid, community colleges are at	Many community college students have to work and earn money	Community college curriculum are closely aligned with workplace	"Community colleges are an excellent value, offer a great return on	Community colleges provide options for students to advance in	
		Community college faculty are teaching at the community college because	Community colleges are not designed for exceptional students who	"Community colleges have student life opportunities such as	Community colleges should not be a goal for students to attend.	Community colleges provide affordable transferable	* "Community college provides a pathway to science,	Community colleges have strong connections with business	"Television shows, movies and the media portray community	A community college education provides a broad basis of		
		Community college is real college.	"While a large number of students attend community colleges with a	** Community colleges have low academic standards and they are a good	Community colleges are primarily a place for adults who are	Good community college programs attract new businesses and	Community colleges are valued by a student's family/support		* Community colleges offer high quality educational opportunities			
		"Community colleges provide access to modern equipment,	Community colleges are more practical than a University	"Community colleges offer courses to a variety of student	Community colleges provide students with excellent	The community college student experience is closer to high school than	Community Colleges offer work-based learning opportunities		**▶ Community colleges offer the quickest pathways to good paying			
			Community colleges are the cheapest way for parents to find out if	The community college does not provide the "college experience."	Community colleges are excellent at delivering online	** "Community colleges are great, however I would want my own child to go	Community colleges offer a place of hope for those that think there is					
			**◄ "If a student goes to a community college first; graduate	* Community college faculty make connections with students	There is a negative stigma associated with community colleges and	Community colleges are given research grants from prestigious	"Community colleges prepare students for high skill, in					
				Jobs that require an Associate degree can be high-paying	Community colleges offer students service learning	Community colleges offer programs that enrich the local community						
				Community colleges do not collaborate with K-12 partners as	The absence of difficult admissions criteria in the community	Community colleges provide a feeling of community and						
					Career and technical education from community colleges leads							

Legend

＊ Distinguishing statement at P< 0.05

＊＊ Distinguishing statement at P< 0.01

▶ z-Score for the statement is higher than in all other factors

◄ z-Score for the statement is lower than in all other factors

The third group derived from Factor Three included four participants and accounted for 15% of the variance. Of the 26 respondents, 15.4% (n = 4) of the *p* set loaded on Factor Three. The loadings for this factor ranged from .7369 to .5949. While four participants loaded on Factor Three, only three of the four participants completed the post-sort survey, resulting in the demographic data for this factor representing three of the four participants. This group had an average age of 30.0 (SD = 0) and worked in a high school setting on average 9.3 (SD = 9.07) years. Of the respondents in Factor Three, 67% (n = 2) of the respondents identified as female, and 33% (n = 1) of this group did not disclose their gender identity. Of those that loaded into this factor, 67% (n = 2) were Caucasian, and 33% (n = 1) were Hispanic. All the participants in Factor Three earned a minimum of master's degree, and 33% (n = 1) earned a post-graduate certificate. No one in Factor Three earned a doctorate degree. All the counselors in Factor Three (n = 3) reported working at a comprehensive high school with no one in this group working at a career and technical academy or at a high school for special populations. In contrast to Factor Group Two where a majority of the participants did not attend a community college as a student, 100% (n = 3) of the participants that loaded within Factor Three attended a community college as a student in the past. Additionally, all the counselors in this group (n = 3) had also visited or toured a community college in the past. The demographics for this Factor Three are presented in Table 17.

Table 17: Demographics for Factor Three

VARIABLE	FREQUENCY	PERCENTAGE
Race/Ethnicity		
Race and Ethnicity Unknown	0	0
Hispanics of any race	1	33

Variable	Frequency	Percentage
American Indian or Alaska Native	0	0
Asian or Pacific Islander	0	0
African American or Black	0	0
Caucasian	2	67
Two or more races	0	0
Gender		
Female	2	67
Male	0	0
Did not Disclose	1	33
Highest Education Level Obtained		
Master's Degree	2	67
Master's Degree Plus Graduate Certificate	1	33
Doctorate Degree	0	0
Type of High School Employed		
Comprehensive	3	100
Career & Technical Academy	0	0
Special Population	0	0
Previous Student at a Community College		
Yes	3	100
No	0	0
Visited and/or Toured a Community College		
Yes	3	100
No	0	

Factor Three had 13 statements that were distinguishing from the other factors. Of those statements, six were positive, six were negative, and one was neutral. Factor Three rated four distinguishing statements with high agreement. The highest (most agree) rated statement from individuals in Factor Three was that *People with four-year degrees come to community colleges to develop skills for work.* Factor Two disagreed with this statement, Factor One slightly disagreed, and Factor Four was neutral. Additionally, those in Factor Three rated *Community colleges offer pathways for students who are underprepared; those not prepared enough to get*

into a four-year university with high agreement, while the other three factor groups noted this statement with very slight agreement. Participants in this group indicated high agreement with the idea that *Community colleges offer students service-learning opportunities* while Factor Four slightly disagreed, Factor One slightly agreed, and Factor Two was neutral. Factor Three was the only factor group to agree with the statement that *Community colleges are more practical than a university experience* with the other factor groups slightly disagreeing.

In contrast, there were six distinguishing statements that Factor Three noted disagreement with. These statements included (1) *From the standpoint of a pyramid, community colleges are at the base (bottom), less selective four-year colleges/universities are in the middle, and highly selective four-year universities are at the top, with community colleges being portrayed at the bottom of the pyramid, community colleges are less than desirable to attend compared to a more selective college or university*; (2) *students who attend community colleges do not wear college-branded clothing because they are embarrassed to be attending a community college and don't carry the pride of a four-year college*; (3) *the community college student experience is closer to high school than college*; (4) *community colleges are great; however, I would want my own child to go to a four-year college;* (5) *community colleges are not designed for exceptional students who have high SAT scores as some students are too smart for community colleges*; and (6) *the majority of community college students have a low socio-economic status because community colleges are designed for lower- and middle-class students.*

Of those distinguishing statements, Factor Three noted the highest disagreement with *The majority of community college students have a low socio-economic status because community colleges are designed for lower and middle-class students.* Factor Four was neutral on this statement, and Factors One and Two indicated slight disagreement. Further, those in Factor

Three highly disagreed with *Community colleges are not designed for exceptional students who have high SAT scores as some students are too smart for community colleges,* while Factors One and Two slightly disagreed with this statement, and Factor Four indicating a neutral stance with this statement. Finally, one of the most significant differences between Factor Three and Factor Four was observed in their respective rankings of the statement *Community colleges are great; however, I would want my own child to go to a four-year college.* The participants in this group strongly disagreed with this statement while Factor Four strongly agreed with this statement. The rankings of these distinguishing statements by Factor Three indicate that they find the community college to offer a variety of practical pathways for students to include under-prepared students, college-ready students, and students who previously earned a college degree who are returning to college to reskill for the workforce. Table 18 illustrates all the distinguishing statements for Factor Three.

The qualitative feedback from the participants in Factor Three provided through the post-sort survey further demonstrates their perception that community colleges are designed as practical pathways for all students. When asked why they rated the statement they most agreed with, one participant in Factor Three indicated the following sentiment:

> I believe any student who chooses to attend a community college before transferring to a university are just as likely to become successful academically and in life in general. There are many reasons why someone would want to start at a community college. I definitely think that the media stereotypes and contribute to negative views of community college. Personally, it was a great way for me to transition from being a high school student to a college student. It also provided a more practical and economical start to my academic journey.

Another comment from a participant in Factor Three noted, "I do not think parents of students who attend community college see them as a failure. Just taking steps to better their futures show their potential for success in any pathway they choose."

100

Interestingly, all the participants who loaded in Factor Three have firsthand knowledge of the variety of pathways that community colleges offer. This is evidenced by the fact that 100% of the participants that made up Factor Three attended a community college as a student in the past. Factor Group Three finds community colleges to offer a variety of practical pathways for all students who seek a higher education.

Table 18: Distinguishing Statements for Factor Three

No.	STATEMENT	FACTOR ONE	FACTOR TWO	FACTOR THREE	FACTOR FOUR
S15	People with four-year degrees come to community colleges to develop skills for work.	-1	-3	6	0
S16	Community colleges offer pathways for students who are underprepared; those not prepared enough to get into a four-year university.	-2	-2	4	-1
S23	Community colleges offer students service-learning opportunities.	1	0	3	-2
S38	Community colleges are more practical than a university experience.	-2	-2	3	-2
S22	Most students choose to focus on the value of education that the community college provides rather than the negative stigma associated with them.	-1	-2	2	-1
S18	Many community college students have responsibilities at home that they must juggle with their course work.	0	0	2	-1
S10	Community college is real college.	6	-3	0	-3
S27	From the standpoint of a pyramid, community colleges are at the base (bottom), less selective four-year colleges/universities are in the middle and highly selective four-year universities are at the top. With community colleges being portrayed at the bottom of the pyramid, community colleges are less than desirable to attend compared to a more selective college or university.	-3	1	-1	3

NO.	STATEMENT	FACTOR ONE	FACTOR TWO	FACTOR THREE	FACTOR FOUR
S32	Students who attend community colleges do not wear college-branded clothing because they are embarrassed to be attending a community college and don't carry the pride of a four-year college.	-4	-4	-2	1
S55	The community college student experience is closer to high school than college.	-3	1	-2	2
S53	Community colleges are great; however, I would want my own child to go to a four-year college.	-2	1	-4	5
S1	Community colleges are not designed for exceptional students who have high SAT scores as some students are too smart for community colleges.	-2	-3	-5	0
S17	The majority of community college students have a low socio-economic status because community colleges are designed for lower- and middle-class students.	-2	-3	-5	0

To further understand this factor, the highest and lowest ranked items for this group were examined. The statement that ranked the highest for the participants in Factor Three was *People with four-year degrees come to community colleges to develop skills for work* (Statement 15). Additionally, participants that made up Factor Three noted significant agreement with the idea that *Community college transfer students are prepared for college and just as successful in completing their bachelor's degree as students that start at a four-year school* (Statement 58). Additionally, this group rated with high agreement that *Community colleges offer high quality educational opportunities that transforms lives* (Statement 54), and *Community colleges are great options for recent high school students and all students should be told about the option* (Statement 46).

The lowest ranked (most disagreed) statement from the participants in Factor Three was *Community college students are a failure for their parents, family, and friends* (Statement 67). Interestingly as previously noted, Factor Two also rated this same statement as their lowest (most disagreed). Additional statements that Factor Three disagreed with the most included *You get what you pay for with a community college—lower price, lower quality, and if community college education were "free," students would not find it to be valuable* (Statement 51)*, Community colleges are not designed for exceptional students who have high SAT scores as some students are too smart for community colleges* (Statement 1) and *The majority of community college students have a low socio-economic status because community colleges are designed for lower- and middle-class students* (Statement 17). The Factor Three group perceived the community college to be a practical option for all students who seek the diversity of pathways the community college has to offer. Table 19 illustrates the highest and lowest ranked items for Factor Three.

Table 19: Highest and Lowest Ranked Items for Factor Three

RANK	NO.	STATEMENT
6 (Highest)	S15	People with four-year degrees come to community colleges to develop skills for work.
5	S58	Community college transfer students are prepared for college and just as successful in completing their bachelor's degree as students that start at a four-year school.
5	S54	Community colleges offer high quality educational opportunities that transforms lives.
5	S46	Community colleges are great options for recent high school students and all students should be told about the option.
-6 (Lowest)	S67	Community college students are a failure for their parents, family, and friends.
-5	S51	You get what you pay for with a community college—lower price, lower quality and if community college education were "free," students would not find it to be valuable.
-5	S1	Community colleges are not designed for exceptional students who have high SAT scores as some students are too smart for community colleges.

103

RANK	No.	STATEMENT
-5	S17	The majority of community college students have a low socio-economic status because community colleges are designed for lower- and middle-class students.

Figure 8 is snapshot of the composite Q-sort for Factor Three. This represents a model sort for Factor Three and illustrates how each statement was ranked across the +6 to -6 range for this factor group.

Figure 8. Composite Q-sort for Factor Three

-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
"Community college students are a failure for their parents,	*◄ Community colleges are not designed for exceptional students who	"Most community college students have lack of direction,	Community colleges are the cheapest way for parents to find out if	Community colleges are more agile and meet student needs better	Community colleges provide a feeling of community and	Community colleges provide students with excellent	"Television shows, movies and the media portray community	Good community college programs attract new businesses and	*► Community colleges offer students service learning	**► Community colleges offer pathways for students who are	Community college transfer students are prepared for	**► People with 4-year degrees come to community colleges to
	"You get what you pay for with a community college--lower	Community college faculty are teaching at the community college because	"Community colleges are a significant force in economic,	"Community college provides a pathway to science,	There is a negative stigma associated with community colleges and	* Community college is real college.	Community colleges offer an easier transition for students than	Community college are a good choice because they are close to	"Community colleges are an excellent value, offer a great return on	Community colleges offer a place of hope for those that think there is	Community colleges offer high quality educational opportunities	
	**◄ The majority of community college students have a low	*◄ "Community colleges are great, however I would want my own child to go	Community colleges do not collaborate with K-12 partners as	Community colleges offer accelerated pathways with stackable	Community colleges offer the quickest pathways to good paying	Community colleges are primarily a place for adults who are	Community college dual enrollment courses are better than	Many community college students have to work and earn money	Community colleges are valued by a student's family/support	"Dual enrollment at a community college gives students a jump	Community colleges are great options for recent high school students	
		Community colleges should not be a goal for students to attend.	"While a large number of students attend community colleges with a	* Students who attend community colleges do not wear	Jobs that require an Associate degree can be high-paying	It is common sense to go to the community college the first two	"Community colleges provide opportunities to meet diverse	**► Most students choose to focus on the value of education that the community	**► Community colleges are more practical than a University	Community colleges provide options for students to advance in		
		Community colleges are relatively unknown and misunderstood	** The community college student experience is closer to high school than	Community colleges are given research grants from prestigious	Community colleges are excellent at delivering online	Highly successful people have started their education at	Community colleges offer schedules that are more flexible for	"A community college education is accessible to all, they meet			
		Community colleges have low academic standards and they are a good	"Community colleges have student life opportunities such as	High school guidance counselors positively influence a	Community colleges offer programs that enrich the local community	A community college education provides a broad basis of	*► Many community college students have esponsibilities at home that	"Community colleges prepare students for high skill, in			
			Community colleges are the same as vocational trade schools.	The absence of difficult admissions criteria in the community	Community colleges have strong connections with business	Community college curriculum are closely aligned with workplace	"If a student goes to a community college first; graduate				
			The community college does not provide the "college experience."	** "From the standpoint of a pyramid, community colleges are at	Community colleges provide opportunities for	Community college faculty make connections with students	Community colleges provide affordable transferable				
				Community colleges have dedicated faculty with advanced	Community Colleges offer work-based learning opportunities	Community colleges give students personalized attention and					
				"Community colleges provide access to modern equipment,	"Community colleges offer courses to a variety of student	Community colleges provide opportunities for hands on					
					Career and technical education from community colleges leads						

Legend

✳ Distinguishing statement at P< 0.05
✳✳ Distinguishing statement at P< 0.01
► z-Score for the statement is higher than in all other factors
◄ z-Score for the statement is lower than in all other factors

Factor Four included three participants and accounted for 9% of the variance explained by the four-factor solution. Of the 26 respondents, 11.5% (n = 3) of the *p* set significantly loaded on Factor Four. The loadings for this factor ranged from .7994 to .6196. While three participants loaded on Factor Four, only two of the three participants completed the post-sort survey, resulting in the demographic data for this factor representing two of the three participants. This group had an average age of 43.9 (SD = 15.5) and worked in a high school setting on average 9.5 (SD = 6.36) years.

Of the respondents within Factor Four, 50% (n = 1) of the respondents identified as female and 50% (n = 1) as male. Of these respondents, 50% (n = 1) of Factor Four were African American, and 50% (n = 1) were Caucasian. Both respondents who loaded in Factor Four earned a master's degree, with one of them having an earned post-graduate certificate, and the other with an earned doctorate degree. Factor Four is the only factor group where 100% of the participants had a post-secondary credential beyond a master's degree. Like Factor Three, 100% (n = 2) of the participants of Factor Four worked at a comprehensive high school with none of them at a career and technical academy or at a high school for special populations. Of the participants in this group, 50% (n = 1) of them attended a community college as a student in the past. Additionally, 100% (n = 2) indicated they had visited or toured a community college in the past. The demographics for this group are presented in Table 20.

Table 20: Demographics for Factor Four

VARIABLE	FREQUENCY	PERCENTAGE
Race/Ethnicity		
Race and Ethnicity Unknown	0	0
Hispanics of any race	0	0

Variable	Frequency	Percentage
American Indian or Alaska Native	0	0
Asian or Pacific Islander	0	0
African American or Black	1	50
Caucasian	1	50
Two or more races	0	0
Gender		
Female	1	50
Male	1	50
Did not Disclose	0	0
Highest Education Level Obtained		
Master's Degree	0	0
Master's Degree Plus Graduate Certificate	1	50
Doctorate Degree	1	50
Type of High School Employed		
Comprehensive	2	100
Career & Technical Academy	0	0
Special Population	0	0
Previous Student at a Community College		
Yes	1	50
No	1	50
Visited and/or Toured a Community College		
Yes	2	100
No	0	0

Factor Four had 18 statements that were distinguishing from the other factors. Of those statements, seven were positive, six were negative, and five were neutral. Table 21 shows all the distinguishing statements for this factor. Factor Four rated five distinguishing statements with high agreement. The highest (most agree) rated statement from individuals in Factor Four was that *There is a negative stigma associated with community colleges and students perceive them as the last resort option*. Those in Factor Three significantly disagreed with this statement, Factor One slightly agreed, and Factor Two was neutral. Additionally, those in Factor Four noted

with high agreement that *Community colleges are great; however, I would want my own child to go to a four-year college.* The participants in Factor Three greatly disagreed with this statement, Factor One disagreed, and Factor Two was closer to neutral.

The participants in Factor Four indicated high agreement with the idea that *the absence of difficult admissions criteria in the community college contributes to a negative perception that students who are not academically qualified for a four-year university have to attend a community college to get a college degree because the courses are easier*, while Factors One and Three slightly disagreed, and Factor Two was neutral. The participants in Factor Four were the only group to agree with the statement that *While a large number of students attend community colleges with a goal of earning a college degree, few actually do.* While Factors Two and Three disagreed, Factor One strongly disagreed with this statement.

In contrast, there were six distinguishing statements that Factor Four noted disagreement with. These statements included (1) *community college students are a failure for their parents, family, and friends*; (2) *community colleges are given research grants from prestigious organizations*; (3) *Community colleges provide a feeling of community and family for students*; (4) *community college faculty make connections with students and know their student's story;* (5) *community colleges are more agile and meet student needs better than four-year universities*; and (6) *career and technical education from community colleges leads to jobs that are not well regarded in society.*

Of these distinguishing statements, Factor Four noted the highest disagreement with *Community colleges are more agile and meet student needs better than four-year universities.* Factors One, Two, and Three indicated just slight disagreement with that same statement. Further, Factor Four highly disagreed with *Community college faculty make connections with*

students and know their student's story, while Factor Three slightly agreed, Factor Two slightly disagreed, and Factor One indicated a neutral stance with this statement. Additionally, Factor Four strongly disagreed with *Community colleges provide a feeling of community and family for students.* Factors One and Two agreed with this statement, and Factor Three slightly disagreed. Finally, the participants in Factor Four indicated strong disagreement with the statement that *Community colleges are given research grants from prestigious organizations.* Factor Two slightly agreed, Factor Three slightly disagreed, and Factor One noted neutral for this statement. The rankings of these distinguishing statements by Factor Four indicate that they may find the community college to be inferior to the four-year university when compared to the perceptions of the participants who loaded in Factors One, Two, and Four. Table 21 illustrates all the distinguishing statements for Factor Four.

The qualitative feedback from the Factor Four group was provided through the post-sort survey, and it further showcases their perception that there is a negative stigma associated with community colleges. When asked why they rated the statement they most agreed with, one participant in Factor Four indicated that "students who attend community college do not wear spirit gear because of embarrassment. It is something I see but never took into consideration why it might be." Another comment from a participant in this group noted that, "people perceive (two-year) Associate degrees as more of a certificate than a degree. They think it has lesser value to employers." Finally, one participant from Factor Four indicated that "many students start community college with good intentions, but life gets in the way, and they never finish." The participants in Factor Group Four acknowledged the stereotypes associated with community colleges the most and noted that while they may be good choices for some students, they would not send their child to a community college.

Table 21: Distinguishing Statements for Factor Four

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S56	There is a negative stigma associated with community colleges and students perceive them as the last resort option.	1	0	-1	6
S53	Community colleges are great; however, I would want my own child to go to a four-year college.	-2	1	-4	5
S39	The absence of difficult admissions criteria in the community college contributes to a negative perception that students who are not academically qualified for a four-year university have to attend a community college to get a college degree because the courses are easier.	-2	0	-1	4
S33	While a large number of students attend community colleges with a goal of earning a college degree, few actually do.	-5	-2	-3	3
S34	The community college does not provide the "college experience."	-4	-1	-2	2
S31	Community colleges have low academic standards, and they are a good route for poor academic performers since they are not rigorous.	-5	-1	-3	1
S32	Students who attend community colleges do not wear college-branded clothing because they are embarrassed to be attending a community college and don't carry the pride of a four-year college.	-4	-4	-2	1
S62	Most community college students have lack of direction, wasted time in high school, had discipline issues, are lazy/troubled.	-5	-5	-4	0
S5	Community colleges have student life opportunities such as athletics, student ambassadors, student government, student clubs and organizations.	3	-2	-2	0
S54	Community colleges offer high quality educational opportunities that transforms lives.	5	3	5	0

No.	Statement	Factor One	Factor Two	Factor Three	Factor Four
S17	The majority of community college students have a low socio-economic status because community colleges are designed for lower- and middle-class students.	-2	-3	-5	0
S1	Community colleges are not designed for exceptional students who have high SAT scores as some students are too smart for community colleges.	-2	-3	-5	0
S67	Community college students are a failure for their parents, family, and friends.	-6	-6	-6	-3
S68	Community colleges are given research grants from prestigious organizations.	0	1	-1	-4
S57	Community colleges provide a feeling of community and family for students.	2	1	-1	-4
S6	Community college faculty make connections with students and know their student's story.	0	-1	1	-5
S71	Community colleges are more agile and meet student needs better than four-year universities.	-2	-1	-2	-5
S30	Career and technical education from community colleges leads to jobs which are not well regarded in society.	-3	0	0	-5

The researcher conducted an additional analysis of Factor Four by looking at the highest and lowest ranked items for this factor group. The statement that ranked the highest for Factor Four was *There is a negative stigma associated with community colleges and students perceive them as the last resort option* (Statement 56). Additionally, participants that made up Factor Four noted significant agreement with the idea *Community colleges are great; however, I would want my own child to go to a four-year college* (Statement 53). Additionally, the participants from Factor Four rated with high agreement that *Dual enrollment at a community college (while in high school) gives students a jump start, reduces costs, and provides exposure to college*

(Statement 19) and *Community colleges are great options for recent high school students and all students should be told about the option* (Statement 46).

The lowest ranked (most disagreed) statement from Factor Four was *Community colleges are the same as vocational trade schools* (Statement 29). Additional statements that Factor Four disagreed with the most included *Community colleges are more agile and meet student needs better than four-year universities* (Statement 71), *Community college faculty make connections with students and know their student's story* (Statement 6), and *Career and technical education from community colleges leads to jobs which are not well regarded in society* (Statement 30). The participants from Factor Four perceived the community college to be an option that all students should be aware of but noted that there is a negative stigma associated with the community college and they would choose to send their child to a four-year university instead of to a community college. Table 22 illustrates the highest and lowest ranked items for Factor Four.

Table 22: Highest and Lowest Ranked Items for Factor Four

RANK	NO.	STATEMENT
6 (Highest)	S56	There is a negative stigma associated with community colleges and students perceive them as the last resort option.
5	S53	Community colleges are great; however, I would want my own child to go to a four-year college.
5	S46	Community colleges are great options for recent high school students and all students should be told about the option.
5	S19	Dual enrollment at a community college gives students a jump start, reduces costs, and provides exposure to college.
-6 (Lowest)	S29	Community colleges are the same as vocational trade schools.
-5	S71	Community colleges are more agile and meet student needs better than four-year universities.
-5	S6	Community college faculty make connections with students and know their student's story.
-5	S30	Career and technical education from community colleges leads to jobs which are not well regarded in society.

Figure 9 is snapshot of the composite Q-sort for Factor Four. This represents a model sort for Factor Four and illustrates how each statement was ranked across the +6 to -6 range for this factor group.

Figure 9. Composite Q-sort for Factor Four

-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
Community colleges are the same as vocational trade schools.	**◄ Community college faculty make connections with students	Community colleges give students personalized attention and	Community college is real college.	"Community colleges provide access to modern equipment,	Many community college students have esponsibilities at home that	Community colleges are excellent at delivering online	Community college are a good choice because they are close to	"Community colleges are an excellent value, offer a great return on	Community colleges offer a place of hope for those that think there is	"A community college education is accessible to all, they meet	**▶ "Community colleges are great, however I would want my own child to go	**▶ There is a negative stigma associated with community colleges and
	**◄ Community colleges are more agile and meet student needs better	Community colleges provide opportunities for	Community college faculty are teaching at the community college because	Community colleges offer students service learning	Community colleges offer programs that enrich the local community	**▶ "Most community college students have lack of direction,	**▶ Community colleges have low academic standards and they are a good	Many community college students have to work and earn money	"Television shows, movies and the media portray community	Community colleges provide options for students to advance in	Community colleges are great options for recent high school students	
	**◄ Career and technical education from community colleges leads	Community colleges are given research grants from prestigious	Community colleges do not collaborate with K-12 partners as	Community colleges are more practical than a University	Community colleges offer an easier transition for students than	* "Community colleges have student life opportunities such as	Students who attend community colleges do not wear	Community college dual enrollment courses are better than	"From the standpoint of a pyramid, community colleges are at	**▶ The absence of difficult admissions criteria in the community	"Dual enrollment at a community college gives students a jump	
	**◄ Community colleges provide a feeling of community and	"You get what you pay for with a community college--lower	Community colleges offer accelerated pathways with stackable	Community colleges offer pathways for students who are	Community colleges have strong connections with business	Good community college programs attract new businesses and	The community college student experience is closer to high school than	"Community colleges prepare students for high skill, in	Community college transfer students are prepared for			
		**▶ "Community college students are a failure for their parents,	Community colleges have dedicated faculty with advanced	Community colleges should not be a goal for students to attend.	Community colleges provide affordable transferable	A community college education provides a broad basis of	**▶ The community college does not provide the "college experience."	**▶ "While a large number of students attend community colleges with a				
		Community colleges are primarily a place for adults who are	Community colleges provide students with excellent	Community colleges offer the quickest pathways to good paying	Community colleges offer high quality educational opportunities	**◄ Jobs that require an Associate degree can be high-paying	Highly successful people have started their education at	Community colleges offer schedules that are more flexible for				
			High school guidance counselors positively influence a	Most students choose to focus on the value of education that the community	"Community colleges offer courses to a variety of student	Community college curriculum are closely aligned with workplace	Community Colleges offer work-based learning opportunities					
			Community colleges are relatively unknown and misunderstood	"Community colleges are a significant force in economic,	People with 4-year degrees come to community colleges to	"Community colleges provide opportunities to meet diverse	Community colleges provide opportunities for hands on					
				It is common sense to go to the community college the first two	*▶ The majority of community college students have a low	"If a student goes to a community college first; graduate						
				Community colleges are the cheapest way for parents to find out if	"Community college provides a pathway to science,	Community colleges are valued by a student's family/support						
						*▶ Community colleges are not designed for exceptional students who						

Legend

* Distinguishing statement at P< 0.05

** Distinguishing statement at P< 0.01

▶ z-Score for the statement is higher than in all other factors

◄ z-Score for the statement is lower than in all other factors

SUMMARY

Chapter Four highlighted the data, results, and analysis of a Q methodology study where the researcher focused on discerning the perceptions of community colleges as held by high school counselors in Clark County, Nevada. A total of 26 high school counselors made up the *p* set who participated in the study. Of those 26 participants, 22 of them loaded into one of four factors (participant groups) that significantly emerged. As explained in Chapter Three, the Q methodology results in the production of two sets of data. First, quantitative data was used to arrive at a factor analysis that provided the statistical data. The second set of data was qualitative in nature and came as a result of a survey the counselors completed after they finished their respective Q-sort. This narrative data helped the researcher further understand the high school counselors' perceptions of community colleges. This qualitative data provides the researcher with a deeper understanding of the high school counselors' perceptions of community colleges according to each factor group. There were four factors (groups) that emerged in this study.

Factor One is defined as the group of high school counselors who strongly view community colleges as real colleges. Factor One values community colleges as high quality post-secondary institutions that provide life-changing opportunities for students. This group also feels that high school counselors positively influence a student's perceptions of community colleges.

Factor Two makes up the group of counselors that can be best characterized as those that find community colleges to be a good starting place for students to begin their college experience. Factor Two finds community colleges to be a cost-effective, quality option and a great choice for students to get their start in college. This group sees the community college as a steppingstone or bridge to the four-year university.

Factor Three can be defined as those high school counselors who perceive community colleges as offering several practical pathways for all students. This factor perceives the

community college as offering a variety of practical pathways for all students, including under-prepared students, college-ready students, and students who previously earned a college degree and who are returning to college to reskill for the workforce.

Factor Four is defined as the group of high school counselors who perceive community colleges as having a negative stigma indicating that community colleges are great, but not for their child. This group perceived community colleges to be geared toward less academically prepared students. The group represented the idea that community colleges are perceived to be a last resort option for students.

Based on the analysis of the consensus and distinguishing statements noted earlier in Chapter Four, it is clear that all four factors perceive community colleges as a viable option for at least some students. While three of the four factors represent counselors who perceive community colleges to be a great choice for students (for a variety of different reasons), one of the factor groups represent the thoughts associated with the negative stigma of community colleges that is often perpetuated in media and entertainment.

A deeper summary of these findings along with the connections between the findings and the review of the literature is presented in Chapter Five. Additionally, the implications of these findings for future practice and policy are noted and recommendations for future research is offered.

CHAPTER FIVE: DISCUSSION & CONCLUSION

INTRODUCTION

Through this study, the researcher sought to examine the perceptions of community colleges that are held by high school counselors who are employed by the Clark County School District located in Southern Nevada. As explained in Chapter Three, the Q methodology was used for this study because it is a good approach to determine perspectives from a given sample on a specific topic (Brown, 1993; van Exel & de Graaf, 2005; Watts & Stenner, 2012). Given this study aimed to identify the current viewpoints about community colleges as held by high school counselors, the alignment in using the Q methodology was a good fit.

The researcher examined the perceptions of current high school counselors in Clark County, Nevada towards community colleges and sought the answer to the following research question:

- What are the viewpoints held by high school counselors toward community colleges?

The results of this research question provided further findings including the identification of factor groups, how each factor viewed the perception statements the same (consensus statements), how each factor viewed the perception statements differently (distinguishing statements), as well as the highest- and lowest-ranked statements for each factor.

To help arrive at the findings, the participants individually sorted an exhaustive list of statements based on their level agreement or disagreement with each one. Following their respective sorts, the participants were asked to respond to a post-sort survey where they provided

some demographic information as well as responded to some open-ended questions to explain why they rated the statements as they did.

As noted in Chapter Two, over the last 50 years or so, a variety of researchers have studied the perceptions that high school counselors have of community colleges (Bottorff, 1975; Costley, 1978; Fritze, 1974; Gallman-DeRienzo, 2009; Hartman, 1979; James, 1969; Lewis, 1973; Weaver, 1988; Phyfer, 1992; Tisdale, 1994; and Parham, 2011). Most of these researchers looked at the perceptions of community colleges as held by high school counselors that were located in a specific region or state. Further, many of these researchers incorporated their own adaptation of the Junior College Attitude Survey (James, 1969) as the instrument to gather the data. The researcher for this study identified a gap in the research in that there has not been a study that looked at the perceptions of community colleges that are held by high school counselors in Nevada. Further, no previous study used the Q methodology to better understand high school counselors' perceptions of community colleges. This study aims to fill this gap in the research.

Chapter Five includes a discussion of the findings that resulted from this study to include a description of the four factors that emerged and a discussion of the consensus statements that all four factors were in alignment with. Later in Chapter Five, the limitations for this study are discussed as well as the implications for theory, practice and future research is laid out.

SUMMARY OF THE FINDINGS

As noted in Chapter Four, the first step in the data analysis was to calculate the correlation matrix. The correlation matrix indicated how similar or dissimilar each of the individual participant's sorts were to one another. Once the correlation matrix was calculated, a factor analysis was completed.

A number of factor analysis solutions were explored to determine the solution. Each factor was looked at based on the number of participants that loaded significantly, the total variance explained, the factor loadings, and the number of people on each factor. The four-factor solution emerged for this study because there was more than one person on each factor, there were higher factor loadings, and the eigenvalue was around one.

Once the four-factor solution was determined, the four factor groups were examined further. The researcher analyzed the consensus statements and the distinguishing statements. The consensus statements are those that the participants in all four factor groups agreed with. The statements that are ranked significantly different (higher or lower between the factor groups) are the distinguishing statements. It is through the analysis of the distinguishing statements that the researcher was able to see the pattern of thoughts that are specific to each of the factor groups (Brown, 2004). These distinguishing statements helped the researcher understand the unique perceptions that are held about community colleges for each factor group.

FINDING #1 – FOUR FACTOR GROUPS EMERGED

The unique perceptions of each of the four factor groups make up the basis for the findings of this study. The four factor groups are defined as follows and are explained in detail next:

- Factor One: Community Colleges are *Real Colleges*.
- Factor Two: Community Colleges are a Good *Starting* Place for Students to Begin.
- Factor Three: Community Colleges provide *Practical Pathways for all Students*.
- Factor Four: Community Colleges have a *Negative Stigma*.

Factor One: Community Colleges are Real Colleges

Factor One is defined as the group of high school counselors who strongly view community colleges as *real colleges*. The participants in Factor One value community colleges as high quality post-secondary institutions that provide life-changing opportunities for students. This group believes that community colleges are a great option for recent high school students, and that every high school student should know that the community college is a great option for them to consider. This group perceives community colleges to be a great option for every student, regardless of the student's academic background. The participants who loaded into Factor One also recognized the relationships that community colleges have with business and industry leaders that often translates to helping students get jobs upon graduation.

The Factor One group does not view the outcome that students encounter from the community college any differently than any other type of college. In fact, this group feels that community college students are perceived as successful by their parents, family, and friends. They indicated that most community college students have direction, did fine in high school, and are not lazy or troubled. They find that the bulk of students who attend a community college with a goal of earning a college degree actually do just that.

The participants who made up Factor One found community colleges to have just as high academic standards and rigor as any other college type. The perceptions of community colleges as held by the participants in Factor One can best be summarized as community colleges are, indeed, real colleges.

Interestingly, the majority of the high school counselors who loaded in Factor One were students at a community college themselves in the past. For the few who had not experienced community college as a student, they have all visited and toured at least one community college in the past. Having firsthand experience as a community college student in the past could

certainly have contributed to the perception that community colleges are real colleges. Thus, they may be less inclined to differentiate the students and the outcomes of community colleges versus other types of post-secondary institutions. By perceiving that community colleges are real colleges, this group could also be combatting the stereotypical perceptions and myths associated with community colleges that are often portrayed in the media, television, and film as noted in Chapter Two (Palinchak, 1973; LeClaire, 2006; Hall, 2007).

Factor Two: Community Colleges are a Good Starting Place for Students to Begin

Factor Two makes up the group of counselors who can be best characterized as those who find community colleges to be a good *starting place* for students to begin their college experience. The participants in Factor Two find community colleges to be a cost-effective, quality option and a great choice for students to get their start in college. This group sees the community college as a steppingstone or bridge to the four-year university. Factor Two values the cost-effectiveness that community colleges are known for and feel that community colleges make it easier for students to transition from high school rather than going to a four-year school right after high school.

There are some possible underlying assumptions to consider here. It is possible that the participants in Factor Two may believe that all students who start at a community college aim to transfer to a four-year university after two years. This group may not fully recognize the community college as also providing career training to recent high school graduates that could lead directly to careers after they graduate from the community college. Again, they find the community college to be great place to start a higher education, but not necessarily a place to go to earn a terminal degree or certificate.

Some of the perceptions of the participants in Factor Two were similar to those in Factor One. Particularly, this group indicated that the parents, family members, and friends of community college students find them to be successful. Also, like Factor One, this group found that community college students have direction, focus, and did a fine job in high school.

The participants in Factor Two find great value for students to start their college career at the community college. This group finds that the lower price point for community college attendance as compared to many four-year colleges and universities is valuable and does not connote a perception that the lower price point at the community college equates to less quality.

The majority of the participants in Factor Two did not have first-hand experience as a previous student at a community college. As such, many of these counselors may not fully grasp the complete mission of the community college. Yes, community colleges are a great place for students to begin their college career; particularly for those students who plan to transfer to a four-year college or university to continue their studies. However, another mission point for the community college is to provide a pathway directly to the workforce by providing career pathways that lead to terminal certificates and degrees. These credentials essentially provide a bridge directly to the workforce without having to continue to a four-year college or university for further education or training. The participants from Factor Two perceive community colleges as institutions for students to begin their college journey perceiving that these students intend to transfer on to a four-year college or university.

Factor Three: Community Colleges Provide Practical Pathways for all Students

Factor Three makes up the high school counselors who perceive community colleges as offering several *practical pathways* for *all* students. This factor views the community college to

offer a variety of practical pathways for all students to include under-prepared students, college-ready students, and students who previously earned a college degree who are returning to college to reskill for the workforce. The participants in Factor Three find that community colleges have pathways that are designed for all students regardless of their socio-economic background, their academic preparation level, and their educational goals.

The Factor Three participants do not seem to hold in high regard any negative stigma associated with the community college. In fact, Factor Three found that students attending a community college should wear college-branded clothing because there is no embarrassment in attending a community college. They find that students have pride in attending college, regardless, if it is a community college or a four-year college or university.

This group indicated that community colleges are great for all types of students regardless of their background. They find community colleges to be designed for exceptional, academically prepared students as well as students who are academically underprepared. Factor Three does not think that there are students who attend a community college who are too smart and shouldn't be there.

Much like Factor Two, the participants in Factor Three find the community college to be a great place to start a college journey. However, unlike Factor Two, the participants in Factor Three find the community college to be a great place to go to college for a variety of other pathways and goals beyond as just a place to start. This includes students seeking workforce training, students who have already earned a college degree who are looking to retool or upskill, and students who are looking to participant in service-learning opportunities.

After reviewing the educational background and experiences of the participants in Factor Three, it is interesting to note that all of them attended a community college as a student in the

past. The past experience these counselors had as a student at a community college themselves could have something to do with their current perceptions of community colleges. As noted in Chapter Two, Gallman-DeRienzo (2009) found that direct experience with a community college, whether through a visit and/or as a student, resulted in a more positive perception of two-year colleges. Additionally, Tisdale (2009) found that counselors who had attended a two-year college had a more favorable perception than counselors who had not.

These lived experiences (behavior) as past community college students themselves, is certainly a product of their attitudes and perceptions of the community college. As discussed in Chapter Two, Fishbein (1975) noted that human perceptions lead to attitude formation which influences a person's belief structure thereby creating behaviors that are aligned to these attitudes and beliefs. In this case, their past behavior of attending a community college themselves may have been influenced by earlier perceptions and attitudes associated with the community college. It is important to note that this study did not capture the participants' behaviors in counseling students to consider community colleges. The focus for this study was simply to understand the perceptions that counselors have of community colleges. However, the implications of this study for a future study in tracking any parallels between the counselors' perceptions and their future counseling behavior is a viable future inquiry and will be discussed later in this chapter.

Unlike Factor Four, the participants in Factor Three noted that they would send their own child to a community college. The perceptions of the participants in Factor Four is discussed next.

Factor Four: Community Colleges Have a Negative Stigma

Factor Four is defined as the group of high school counselors who perceive community colleges as having a negative stigma indicating that community colleges are great, but not for

their child. This group perceived community colleges to be geared toward less academically

prepared students. These perceptions are in alignment with previous research. As noted in

Chapter Two, there were unfavorable perceptions of the community college that revolved around

the open admissions policy, which stemmed from the belief that the academic rigor and

standards were thus less than those of the four-year institution (Gallman-DeRienzo, 2009; Gould,

2004; Mitkos, 2007). The participants in Factor Four represented the idea that community

colleges are perceived to be a last resort option for students.

Counselors in Factor Four think that four-year universities meet student needs better than

community colleges do. They find the faculty at four-year universities do a better job at making

connections with students than do the faculty at community colleges. This group believes that

community colleges are not given research grants from prestigious organizations. They also find

that universities are more agile and meet the needs of students better than community colleges.

These perspectives are aligned to many of the myths associated with community colleges

that were discussed in detail in Chapter Two. For example, Sacks (2007) noted that higher

education options are often characterized by a pecking order best visualized by a traditional

pyramid. In this pyramid, community colleges are at the base (bottom), less selective four-year

colleges/universities are in the middle, and highly selective four-year universities are at the top.

With community colleges being portrayed at the bottom of the pyramid, a perception could arise

that community colleges are less than desirable to attend compared to a more selective college or

university.

Further, the participants in Factor Four perceive community college students as having

intentions to graduate but acknowledge that few actually do graduate. The lower community

college graduation rates could certainly spark a perception that community colleges are not as

good as the four-year university. This perspective is aligned to previous research done. As noted in Chapter Two, Shulock and Moore (2007) found in their study that while a large number of students attend community colleges with a goal of earning a college degree, few actually do. Low completion rates, therefore, lead the general public to perceive that community colleges are not producing college graduates, which in turn provokes negative perceptions of the community college.

The demographic data provided by the participants in Factor Four indicate that all of them have earned college credentials beyond a master's degree and half of them started their college career at a community college. This additional lived exposure within a university setting and the limited experience as a student at a community college could be influencing their perception of the negative stigma associated with the community college.

FINDING #2–CONSENSUS STATEMENTS FOR ALL FOUR FACTOR GROUPS

The participants within the four factor groups rated some of the statements from the Q-set similarly. These particular statements are referred to as consensus statements. There were 12 consensus statements. All four factor groups indicated they *agreed* with the following four statements:

1. Community colleges prepare students for high skill, in demand jobs with family sustainable wages.

2. Community colleges are great options for recent high school students and all students should be told about the option.

3. A community college education is accessible to all, they meet students where they are regardless of academic preparation and background and offer students endless possibilities for everyone.

4. Good community college programs attract new businesses and industries to a community and contribute positively to the economic health and economic development of the local community.

It is clear that the participants in all four factors perceive community colleges to have a place within the higher education tapestry of options. The four groups indicated with agreement that community colleges prepare students for in-demand jobs which may attract new businesses and industries to a community. This contributes to the economic strength of a community. They also all agree that the open access mission of the community college provides access to a higher education for all students and all students should at least be told about the option.

There were three consensus statements that the four factor groups indicated they *disagreed* with:

1. Community college faculty are teaching at the community college because they couldn't get a job at the university.

2. Community colleges are the cheapest way for parents to find out if their child is ready for college.

3. You get what you pay for with a community college—lower price, lower quality, and if community college education were "free," students would not find it to be valuable.

Based on the statements that all four factor groups disagreed with, there seems to be consensus among these counselors that faculty who choose to teach at a community college do so not because they could not get a job at a university, but perhaps for other more intentional reasons. For example, faculty may very well choose to have a career at the community college because the mission of the community college resonates with them.

Additionally, the participants in this study all seem to agree that the lower price point that community colleges offer is not a measure of less quality. This finding is interesting and is counter to some of the previous studies on the price of community colleges being an indicator of reduced quality. The scarcity principle that was discussed in Chapter Two has been previously applied to the perceptions of community colleges. Lynn (1992) found that the low cost and accessibility of community colleges could lead to inferior perceptions of community colleges. The perception of diminished value as framed by the notion that "you get what you pay for" is a

perception of community colleges held by some (Cox-Otto, 2006). However, the counselors represented in the four factor groups in this study did not perceive the lower price point of community colleges as an indicator of inferior quality.

There were five consensus statements that the participants from all four factors indicated a stance that was closer to *neutral*:

1. Many community college students have responsibilities at home that they must juggle with their course work.

2. Community colleges are a good choice because they are close to home and won't require living on campus.

3. Community colleges are excellent at delivering online education.

4. Highly successful people have started their education at community colleges.

5. Community colleges provide affordable transferable credits that enable students to transfer with university studies afterwards including at Ivy league universities.

These consensus statements indicate a neutral position among the participants in all four factor groups. These statements did not fall into high agreement or high disagreement. In most cases, these statements loaded neutral meaning the participants did not agree or disagree with these statements.

Due to the forced distribution that the participants experienced during the Q-sort, it could be that some of the participants were forced to rate some of these as neutral statements even if they had slight agreement or slight disagreement with one or more of them. However, it is clear that these statements noted as neutral certainly do not represent strong perceptions on either side of the agreement/disagreement scale. Had any of these statements been perceived with strong agreement or strong disagreement by the factors, the statements would not be represented as neutral consensus statements here.

STUDY LIMITATIONS

This study was designed to identify the viewpoints held by high school counselors toward community colleges. Specifically, the researcher focused exclusively on high school counselors who were employed within the Clark County School District located in Southern Nevada. As such, the findings of this study cannot be generalized to include all high school counselors in Nevada or in other states. It is important to emphasize that a Q method study is purposefully designed not to generalize toward a population, but rather to understand specific viewpoints of a particular topic that are held by a population.

Another limitation of this study is the timeframe that it occurred. The researcher solicited high school counselors to participate in this study through the methodology described in Chapter Three. This came at a time when the world was experiencing an evolving pandemic. During this time, high school counselors were incredibly overwhelmed with a variety of additional tasks. As such, counselors were slow to respond to participate. Eventually, 26 high school counselors participated in the study. As noted in Chapter Three, previous Q methodology researchers have indicated that the ratio of the Q-set to the p set should be approximately 2:1 to include no more participants than the number of items in the Q-set (Watts & Stenner, 2012). Given that there were 75 items in the final Q-set, the number in the p set would have ideally been 37. While the researcher had aimed to have 37 participants, under the circumstances that the worldwide pandemic brought on, 26 participants was certainly enough to carry out the study. As Stenner and Watts (2005) pointed out, a large number of participants is not necessary for a successful Q methodological study to be conducted.

Another limitation of this study brought on as a result of the global pandemic was that the researcher had to engage in the data collection strictly through asynchronous electronic means. The participants completed the Q-sort and post-sort survey through an online Q-sort software

(qmethodsoftware.com) on their own time. Under more ideal circumstances, the participants would have gathered in a large room with the researcher in person to complete their respective Q-sorts and post-sort survey. This would have given the researcher an opportunity to go over the conditions of instructions in person, answer any questions the participants had in real time, and to ensure the participants were comfortable with the sorting process. Some participants indicated in their post-sort survey that they found some elements of the sorting process confusing.

There were two areas where participants noted frustration which may have caused participant fatigue while engaged with this study. These two things included the number of statements that they had to sort and the forced distribution approach within the Q-sorting process.

First, some participants noted that the number of statements that they had to sort was overwhelming. One participant indicated in their post-sort survey the suggestion to "limit the items in the future to make it less of a daunting task." There were 75 statements in the Q-set to sort. Researchers have noted that a Q set of somewhere between 40 and 80 statements is considered suitable (Curt, 1994; Stainton Rogers, 1995) noting any more than that could make the sorting process unwieldy. While a 75-statement Q-set fits within the acceptable range of an ideal Q method study, future researchers who choose to use the same Q-set provided through this study may decide to further reduce the statements down to arrive at fewer statements in the Q-set.

The second area of frustration expressed by some of the participants through the post-sort survey was regarding the forced distribution nature of the sorting process. Some of the participants found it difficult to place statements in areas of the grid they did not necessarily want to but were forced to because they had already filled the other spots with statements they

felt more strongly about. While this forced distribution approach may have caused some frustration, it really forced participants to think through the statements carefully by asking them to place the statements they felt the strongest about in the grid accordingly. The forced distribution actually helps to provoke variance across the participants. Brown (1980) noted contrary as it may seem, a forced distribution is actually no more limiting than a "free" distribution. However, this may have caused some of the participants to grow weary, and as a result, they may not have dedicated the time to portray their sorts in a way that is most accurately aligned to their perceptions.

A final limitation of this study relates to the method that was used to collect the qualitative data. The participants completed an online post-sort survey immediately following the completion of their respective Q-sorts. The post-sort survey was designed to solicit feedback on why the participants selected the statements they most agreed with and least agreed with. This qualitative feedback is an essential component of the Q method as it provides the researcher with a deeper narrative of understanding of each of the factors that emerged. Under ideal conditions, focus groups would have occurred to get a deeper understanding of the perceptions from each of the factor groups. However, the state of the pandemic at the time the study was completed did not allow for in-person focus groups to happen and participants were reluctant to participate in focus groups through video conference. As a result, the post-sort survey outcomes had to stand as the singular input for the qualitative portion of this study. Future studies might consider incorporating in-person focus groups following the participant's completion of the Q-sort exercise. This is described in further detail later in Chapter Five.

STUDY IMPLICATIONS

While this study has instigated some additional questions that could be examined through future studies, it also contributes to the literature in a significant way. The findings from this study have illuminated some implications that tie to theory and practice. These implications are outlined in the following section.

THEORETICAL IMPLICATIONS

The theoretical framework for this study was rooted in Perception Theory (Fishbein, 1975). As noted earlier, human perception is the process by which a person organizes and interprets stimuli that they have received through one or more senses that are ultimately interpreted and serve as the basis in formulating individual attitudes, behaviors, and beliefs. Fishbein (1975) noted in this theory of perception that human perceptions lead to attitude formation which influence a person's belief structure thereby creating behaviors that are aligned to these attitudes and beliefs. The researcher aimed to better understand the perceptions of community colleges that are held by high school counselors. Knowing these perceptions will help predict the counselor's behavior when it comes to how they advise their high school students during college selection discussions.

The findings from this study revealed the various perceptions about the community college that are perceived by high school counselors. This information will help researchers and practitioners alike understand how these perceptions may shape attitudes, beliefs, and behaviors when it comes to helping high school students engage in their future college selection. Further, this understanding of these perceptions provides for implications for practice that are described next.

IMPLICATIONS FOR PRACTICE

Three implications for practice arose from this study. These practical implications were determined based on the perceptions of the four factor groups that emerged from this study. These implications include the development of more refined community college marketing materials designed for high school counselors, a specific professional development series about community colleges designed for high school counselors, and the development of a documentary that tells the story of the mission of the community college through the lens of community college students. Each of these implications for practice are explained next.

As discussed earlier in this chapter, the participants from all four factor groups that emerged from this study recognize many of the positive elements that community colleges provide for students. However, the perceptions are not consistent across all groups and each group did not strongly acknowledge one or more attributes of the community college mission.

To help remedy this situation, the researcher recommends that community college marketing teams develop a comprehensive marketing campaign that is designed specifically for high school counselors in the college's service region. This marketing campaign should contain a variety of collateral that uniquely and accurately highlights the many positive things that community colleges provide for students as well as the community the college serves. The marketing tools should be focused on providing information about the community college that would be useful for high school counselors to share with their students. The Q-set of perception statements used in this study would be a good place for a community college marketing team to extract messaging ideas.

In addition to the development and deployment of a community college marketing campaign, the researcher recommends for community college leaders to develop and deliver a professional development series specifically designed for high school counselors. As noted in

Chapter Two, the more interaction high school counselors have with the community college, the more their perceptions will evolve to see the many positive things that the community college experience provides for students (Parham, 2011). This professional development series could be built with interactive engagement, on-campus experiential activities and observations, and the opportunity to hear directly from community college students about their experiences.

Finally, the researcher recommends an implication of practice that would have a national reach and impact on a variety of college choice influencers to include high school counselors. The researcher recommends the development and distribution of a documentary that would tell the story of the community college and the impact these institutions have on students and communities across the nation. The perceptions of community colleges held by high school counselors that were gleaned from this study and others could be useful in the development of the storyboard for such a documentary. This documentary could be used as a tool to not only debunk some of the stereotypical myths that are perpetuated about community colleges but could also paint a beautiful picture of the community college mission and the myriad students that they serve. This documentary would help to influence accurate perceptions and a positive reputation of community colleges in a time when the nation is looking to the future of affordable and accessible higher education for *all* people.

RECOMMENDATIONS FOR FUTURE RESEARCH

As of the completion date of this study, there has not been a study that looked at the perceptions of community colleges as held by high school counselors through the framework of the Q methodology. As such, this study paves the way for researchers to engage in future Q method studies in this same area of inquiry in other regions of the state or in other areas throughout the nation. Additionally, future Q studies could be conducted with other groups of

people who influence college selection for high school students such as parents, high school teachers, family members of high school students, and high school students themselves. Essentially, the same study design could be replicated with an adjustment of altering the *p* set.

Researchers interested in contributing to this body of literature in the future could examine the full concourse of perception statements that came as a result of this study and could look for opportunities to improve it and/or build upon it. Others may be able to reduce the number of statements in the Q-set from the 75 statements that came out of this study. Doing so may help to reduce participant fatigue during the sorting process in future studies. As noted earlier, others might choose to utilize the exact Q-set that was produced in this study as a means of study replication with a different *p* set of college selection influencers.

For future Q method studies in this area of research, it is recommended that the researcher engage the participants in a focus group session following the completion of their respective Q-sorts. The outcome of these focus group sessions will help provide an even deeper understanding of the reasons why the various factor groups feel the way they do about community colleges. The interactive focus group sessions will also provide an opportunity for the researcher to ask follow-up questions of the participants based upon their initial responses. All of this will help provide a deeper breadth of understanding for the researcher.

Finally, the findings of this study might prompt a researcher to conduct a future study that examines behavior based on the perceptions noted by the four factor groups that emerged in this study. While the focus of this study was simply to document and better understand the perceptions of community colleges as held by high school counselors in Southern Nevada, a future study could focus on whether these perceptions actually play out in counselor behavior when engaged in college discussions with high school students. For example, the participants

from Factor Two noted that community colleges are a good starting place for students to begin. Based on this perception, does the counselor's actual behavior mimic this perception? Do these counselors advise their students to consider starting at a community college upon high school graduation? A future study could weave nicely into the current body of research where other studies looked exclusively at perceptions but not at whether these perceptions impact actual counseling behavior (Gallman-DeRienzo, 2009; Huggins, 2010; Parham, 2011; Tisdale, 1994).

CONCLUSION

This study was designed to examine the perceptions about community colleges that are held by high school counselors from the Clark County School District located in Southern Nevada. The research design for this study was built using the Q methodology. Researchers have determined that the Q methodology is designed to determine perspectives from a given sample on a specific topic (Brown, 1993; van Exel & de Graaf, 2005; Watts & Stenner, 2012). Given this study aimed to identify the current viewpoints about community colleges as held by high school counselors, the alignment in using the Q methodology was a good fit.

After a correlation matrix and factor analysis was conducted and analyzed, four distinct factors emerged and were explained. The unique perceptions of each of the four factor groups make up the basis for the findings of this study. The four factor groups of counselor perceptions included (1) community colleges are real colleges (Factor One), (2) community colleges are a good starting place for students to begin (Factor Two), (3) community colleges provide practical pathways for all students (Factor Three), and (4) community colleges have a negative stigma (Factor Four). Knowing these perceptions will help practitioners predict high school counselor's behavior when it comes to how they advise their students during college selection discussions.

These findings provide opportunities for future research in this space as well as a variety of implications for practice. These implications include the development of a more robust and accurate marketing campaign for community colleges designed specifically for high school counselors, the development of a professional development series about community colleges for high school counselors, and the development of a national documentary that tells the story of the community college mission and the students these institutions serve. All these implications could help foster a deeper breadth of positive perceptions held by high school counselors of the community college. This, in turn, should help pave the way for more high school students to see the myriad of positive reasons why the community college could be a great choice for their college experience.

REFERENCES

Alsboro, D. E. (1987). *Lake Michigan College as perceived by teachers and counselors in two high schools.* Doctoral Dissertation, Wayne State University. ProQuest Dissertations Publishing. ProQuest Document ID 8809072.

Bailey, T. R., Jaggars, S. S., & Jenkins, D. (2015). *Redesigning America's community colleges: A clearer path to student success*. Harvard University Press.

Belasco, A. S. (2013). Creating college opportunity: School counselors and their influence on postsecondary enrollment. *Research in Higher Education*, 54(7), 781–804. https://www.jstor.org/stable/24571745

Blocker, C., Plummer, R., & Richardson, R. (1965). *The two-year college: A social synthesis*. Prentice-Hall, Inc.

Blumberg-Corwin, Z., & Tierney, W. (2007). *Getting there and beyond: Building a culture of college going in high school*. Center for Higher Education Policy Analysis. http://www.usc.edu/dept/chepa

Botorff, R. (1975). *A survey of Arkansas high school counselors' attitudes toward the community college.* Unpublished doctoral dissertation, East Texas State University. Dissertation Abstracts International, 36, 7141.

Bourdieu, P. (1977). *Outline of a theory of practice*. Harvard University Press.

Brown, S. R. (1980). *Political subjectivity: Applications of Q methodology in political science*. New Haven and London. http://qmethod.org/papers/Brown-1980-PoliticalSubjectivity.pdf: Yale University Press.

Brown, S. R. (1993). A primer on Q methodology. *Operant Subjectivity*, *16*(3/4), 91–138.

Brown, S. R. (1994). The structure and form of subjectivity in political theory and behavior. *Operant Subjectivity*, *17*, 30–48.

Brown, S. R. (2004). Q methodology. In M.S. Lewis-Beck, A. Bryman, & T.F. Liao (Eds.), *The SAGE encyclopedia of social science research methods* (Vol. 3, pp. 887–888). Sage

Bryan, J., Holcomb-McCoy, C., Moore-Thomas, C., & Day-Vines, N. L. (2009). Who sees the counselor for college information? A national study. *Professional School Counseling*, *(12)*4, 280–291. https:www/jstor.org/stable/42732871

Cohen, A., & Brawer, F. (1996). *The American community college* (3rd ed., Rev.). -Bass, Inc.

Cohen, A., Brawer, F. B., & Kisker, C. B. (2014). *The American community college* (6th ed.). Jossey-Bass.

Costley, W. (1977). *A study of Mississippi secondary school counselors' perceptions of the public junior college*. (Unpublished doctoral dissertation, University of Southern Mississippi) Dissertation Abstracts International, 38, 5867.

Cox-Otto, P. (2006). *Generational marketing: Report to Ocean District Management Association*, Ocean District Management Association.

Curt, B. (1994). *Textuality and tectonics: Troubling social and psychological science*. Open University Press.

Dougherty, K.J. (2001). *The contradictory college: The conflicting origins, impacts, and futures of the community college*. State University of New York Press.

Dougherty, K. J., Lahr, H., & Morest, V. S. (2017). *Reforming the American community college: Promising changes and their challenges*. Columbia University, Teachers College, Community College Research Center. https://ccrc.tc.columbia.edu/media/k2/attachments/ reforming-american-community-college-promising-changes-challenges.pdf

Fishbein, M. (1975). *Beliefs, attitudes, intentions, and behaviors: An introduction to theory and research*. Addison Wesley.

Flowers, S. (1988). *A study of the relationships between counselor characteristics, pre-college advisement practices, and attitudes toward community and junior colleges.* Unpublished doctoral dissertation, Album University.

Fowler, F. (1997). *College selection and the decision-making process*. St. Louis University.

Fritze, J. (1974). *An assessment of selected Oklahoma public school personnel's opinion of the public junior college.* Unpublished doctoral dissertation, The University of Texas, Austin, TX.

Gallman-DeRienzo, V. (2009). *High school counselors' perceptions of two-year colleges: A study of demographics and employment-related characteristics, cultural capital, and familiarity*. Doctoral dissertation, University of South Carolina. From Dissertations & Theses: A&I database. (Publication No. AAT 3354807).

Gould, D. (2004). *Expanding opportunity: Communicating about the role of community colleges*. http://www.brspoll.com.

Hall, Z. (2007). *An exploratory investigation of the influence of college president perceptions on organizational commitment to higher education marketing at high performing California community colleges*. Doctoral dissertation (University of California, Santa Barbara). From Dissertations & Theses: A&I database. (Publication No. AAT 3296175)

Hardin, T. L. (1986). The University of Illinois and the Community-Junior College Movement, 1901–1965. *Illinois Historical Journal*, *79*(2), 82–98. http://www.jstor.org/stable/40191941

Hartman, R.P. (1979). *An attitude analysis of Tennessee secondary school counselors' attitudes toward the community college within the state*. Unpublished doctoral dissertation, University of Tennessee. Huggins (2010)

Hugo, E. (2004). *Rethinking counseling for college: Perceptions of the school and counselor roles in increasing college enrollment*. (Unpublished doctoral dissertation). University of California, Los Angeles.

Ilic, G., & Rosenbaum, J. E. (2019). Going all in on college counseling: Successes and trade-offs. *Phi Beta Kappan*, *101*(2), 42–45.

Ilic, G., Rosenbaum, J. E., Matthies, I., & Meissner, L. (2020). The college counseling dilemma: Information and/or advice? *Phi Beta Kappan*, *102*(2), 40–43.

James, G. (1969). *The assessment of attitudes of Illinois public high school counselors toward the junior college.* Doctoral dissertation (University of Illinois at Urbana-Champaign). From Dissertations & Theses: A&I database. (Publication No. AAT 7000887).

Lambie, G. W., Williamson, L. L. (2004). The challenge to change from guidance counseling to professional school counseling: A historical proposition. *Professional School Counseling*, *8(*2), 124–131.

LeClaire, J. (2006). Five myths about community colleges. *Fastweb.com:* http://www.fastweb.com/fastweb/resources/ articles/index/110262

Levin, J. S. (2001). Public policy, community colleges, and the path to globalization. *Higher Education*, *42*, 237–262. https://doi.org/10.1023/A:1017929400319

Lewis, J. J. (1973). *A study of attitudes of high school counselors in metropolitan centers of Texas toward the junior college*. Unpublished doctoral dissertation, University of Houston.

Lumina Foundation (2020). *Stronger nation*. https://www.luminafoundation.org/resource/a-stronger-nation-july-2020-update/

Lynn, M. (1992). The psychology of unavailability: explaining scarcity and cost effects on value. *Basic and Applied Social Psychology*, *13*(1), 3–7.

Mayo, D. W. (1973). *Attitudes of selected public high school counselors toward the North Carolina Community College System*. ProQuest Dissertations Publishing. ProQuest Document ID 7419011.

McKillip, M. E. M., Rawls, A., & Barry, C. (2012). Improving college access: A review of research on the role of high school counselors. *Professional School Counseling*, *16*(1), 49–58. http://www.jstor.org/stable/10.2307/profschocoun.16.1.49

Merisotis, J. (2020). *A 'closing argument' for the national goal of 60% of adults having more than a high school diploma by 2025*. Lumina Foundation. https://www.luminafoundation.org/news-and-views/a-closing-argument-for-the-national-goal-of-60-of-adults-having-more-than-a-high-school-diploma-by-2025/

Mitkos, Y. (2007). *Perceptions of the community college of high school counselors and advisors.* Doctoral dissertation (University of Illinois at Urbana-Champaign). From Dissertations & Theses: A&I database. (Publication No. AAT 3269981)

Mitkos, Y., & Bragg, D. D. (2008). Perceptions of the community college of high school counselors and advisors. *Community College Journal of Research and Practice*, *32*(4–6), 375–390. https://doi.org/10.1080/10668920701884513

National Center for Education Statistics (2021). Educational attainment of young adults. *Annual Reports*. https://nces.ed.gov/programs/coe/indicator/caa/young-adult-attainment

Palinchak, R. (1973). *Evolution of the community college*. The Scarecrow Press.

Parham, M. (2011). *Perceptions held by high school counselors of community colleges*. Doctoral dissertation (California State University, Long Beach). From Dissertations & Theses: A&I database.

Phyfer, M. (1992) *Attitudes of high school and community college personnel towards Three Rivers Community College.* Doctoral Dissertation, The University of Mississippi, Oxford MS.

Pike, J. (1980*). Perceptions of Schoolcraft College held by the community college district high school counselors and teachers*. Doctoral dissertation, University of Michigan, Ann Arbor.

Robinson, K. J., & Roksa, J. (2016). Counselors, information, and high school college-going culture: Inequalities in the college application process. *Research in Higher Education*, *57*(7), 845–868. https://www.jstore.org/stable/26451434

Rosenbaum, J. E., Miller, S. R., & Krei, M. S. (1996). Gatekeeping in an era of more open gates: High school counselors' views of their influence on students' college plans. *American Journal of Education*, *104*(4), 257–279. http://www.jstor.org/stable/1085432

Sacks, P. (2007). *Tearing down the gates: Confronting the class divide in American education*. University of California Press.

Shulock, N., & Moore, C. (2007, February). *Rules of the game: How state policy creates barriers to degree completion and impedes student success in the California Community Colleges*. California State University-Sacramento, Institute for Higher Education Leadership and Policy, Feb. 2007.

Stainton Rogers, R. (1995). Q methodology. In Smith, J.A., Harre´, R. and Van Langenhove, L., editors, *Rethinking methods in psychology*. Sage.

Stephenson, W. (1935). Correlating persons instead of tests. *Character and Personality*, *4*, 17–24.

Stephenson, W. (1936). The foundations of psychometry: Four factor systems. *Psychometrika*, *1*, 195–209.

Stephenson, W. (1953). *The study of behavior; Q-technique and its methodology*. University of Chicago Press.

Stephenson, W. (1993). Introduction to Q-methodology. *Operant Subjectivity*, *17*(1), 1–13.

Templin, R. G. (2011). *America's community colleges: The key to the college completion challenge. American Council on Education*. http://www.acenet.edu/the-presidency/columns-and-features/Pages/America%E2%80%99s-Community-Colleges-The-Key-to-the-College-Completion-Challenge.aspx

Tillery, D., & Deegan, W. (1985). The evolution of two-year colleges through four generations. In Deegan, W., & Tillery, D. (Eds.), *Renewing the American community college: Priorities and strategies for effective leadership* (pp. 3–33). Jossey-Bass Publishers.

Tisdale, J. W. (1994). *Colorado high school guidance counselor perceptions of community and junior colleges.* Doctoral dissertation,(Colorado State University). From ProQuest Dissertations Publishing. ProQuest Document ID 304101766.

Tversky, A., & Kahneman, D. (1982). Judgment under uncertainty: Heuristics and biases. In D Kahneman, P. Slovic & A. Tversky (Eds.), *Judgment under uncertainty: Heuristics and biases* (p. 3–22). Cambridge University Press.

van Exel, J. & de Graaf, G. (2005). *Q Methodology: A sneak preview*.

Watson, K. L. (2005). *Defining the fifth generation of American community colleges*. Doctoral Dissertation. Morgan State University.

Watts, S., & Stenner, P. (2005). Doing Q methodology: Theory, method, and interpretation. *Qualitative Research in Psychology*, *2*(1), 67–91. doi:http://dx.doi.org.prox.lib.ncsu.edu/10.1191/1478088705qp022oa

Watts, S. & Stenner, P. (2012). *Doing Q methodological research: Theory, method, and interpretation*. Sage.

Weaver, N. J. (1985). *Perceptions of high school counselors and high school graduates in Hillsborough County, Florida, regarding institutions of higher education in the state of Florida*. ProQuest Dissertations Publishing. ProQuest Document ID 8517348.

Williams, R. S. (1977). *High school counselors' attitudes toward two and four-year colleges*. Unpublished Doctoral Dissertation. ProQuest Dissertations Publishing. ProQuest Document ID 7727047.

Witt, A., Wattenbarger, J., Collattscheck, J., & Suppiger, J. (1994). *America's community colleges: The first century*. Community College Press.

Zabala, A., & Pascual, U. (2016). Bootstrapping Q methodology to improve the understanding of human perspectives. *PLOS ONE*, *11*(2): e0148087. doi:10.1371/journal.pone.0148087

APPENDIX A: IRB APPROVAL LETTERS

4212 Eucalyptus Ave · Las Vegas, NV 89121 · (702) 799-1041

CCSD
CLARK COUNTY
SCHOOL DISTRICT

September 22, 2021

James McCoy
860 Loma Bonita Pl
Las Vegas, NV 89138

James McCoy:

The Research Review Committee of the Clark County School District has reviewed your request titled: *Perceptions of Community Colleges Held by High School Guidance Counselors: A Q Methodology Examination #600.* The committee is pleased to inform you that your proposal has been approved with the following provisos:

1. Participation is strictly and solely on a voluntary basis.

This research protocol is approved for a period of one school year from the approval date. The expiration of this protocol is 6/30/2022. If the use of human subjects described in the referenced protocol will continue beyond the expiration date, you must provide a letter requesting an extension. The letter must indicate whether there will be any modifications to the original protocol. If there is any change to the protocol, it will be necessary to request additional approval for such change(s) in writing to the Research Review Committee.

If there is any chance the researcher will be alone with students, a volunteer application must be completed with the CCSD Human Resources Division. Please refer to the website https://www.ccsd.net/community/protect-our-kids/ or call Human Resources at 702-799-2273 with any questions.

Please provide a copy of your research findings to this office upon completion. We look forward to the results. If you have any questions or require assistance, please do not hesitate to contact this office at (702) 799-1041 option 4, or e-mail at eugenk@nv.ccsd.net.

Sincerely,

Kate Eugenis, PhD
Coordinator III, Research Department

FERRIS STATE UNIVERSITY

Date: August 2, 2021

To: Susan DeCamillis, EdD
From: Gregory Wellman, R.Ph, Ph.D, IRB Chair
Re: IRB Application *IRB-FY20-21-208 Perceptions of Community Colleges Held by High School Guidance Counselors: A Q Methodology Examination*

The Ferris State University Institutional Review Board (IRB) has reviewed your application for using human subjects in the study, *Perceptions of Community Colleges Held by High School Guidance Counselors: A Q Methodology Examination(IRB-FY20-21-208)* and approved this project under Federal Regulations Exempt Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Your protocol has been assigned project number IRB-FY20-21-208. Approval mandates that you follow all University policy and procedures, in addition to applicable governmental regulations. Approval applies only to the activities described in the protocol submission; should revisions need to be made, all materials must be approved by the IRB prior to initiation. In addition, the IRB must be made aware of any serious and unexpected and/or unanticipated adverse events as well as complaints and non-compliance issues.

This project has been granted a waiver of consent documentation; signatures of participants need not be collected. Although not documented, informed consent is a process beginning with a description of the study and participant rights, with the assurance of participant understanding. Informed consent must be provided, even when documentation is waived, and continue throughout the study.

As mandated by Title 45 Code of Federal Regulations, Part 46 (45 CFR 46) the IRB requires submission of annual status reports during the life of the research project and a Final Report Form upon study completion. Thank you for your compliance with these guidelines and best wishes for a successful research endeavor. Please let us know if the IRB can be of any future assistance.

Regards,

Gregory Wellman, R.Ph, Ph.D, IRB Chair
Ferris State University Institutional Review Board

APPENDIX B: PARTICIPANT RECRUITMENT LETTER

Participant Recruitment Letter #1

Dear CCSD High School Counselor,

       High school guidance counselors are key influencers in the post-secondary selection decisions made by high school students. Given this influence, it is important to understand the values, perceptions, and considerations high school counselors hold about community colleges. With this in mind, you can provide unique feedback for us to better understand how high school guidance counselors view community colleges.

       Ferris State University has been a leader in preparing leaders in community colleges and your feedback will be used to improve our understanding of the perceptions of community colleges held by high school guidance counselors. This research will be used as part of the requirements to complete my doctoral degree and is under the supervision of my Chair, Dr. Lee Ann Nutt, who is a faculty member at Ferris State University and serves as the president of Lone Star College, Tomball. This study is also supervised by Dr. Sue DeCamillis, Professor at Ferris State University and study liaison to the Institutional Research Board at Ferris State University.

       For this study, I am seeking to recruit participants who are full time high school guidance counselors at a high school in the Clark County School District. This online research study will ask you to sort statement cards (through an online survey portal) about community colleges based on how you view community colleges. Following the completion of the online survey, you will be invited to participate in 45–60-minute focus group session. The research study has been approved by the Institutional Research Board at Ferris State University as well as the Institutional Research Board for Clark County School District.

       Once you have read the attached consent letter, please click the following link if you are willing to participate in the study. The Q-method software will provide instructions and a quick post sort questionnaire. The survey will take less than 30 minutes to complete, the focus group session will last approximately 45-60 minutes, and both will be completed entirely online. Participation or nonparticipation in this study will not impact your employment with Clark County School District in any way. Participation in the study must be done outside of your normal contracted work hours with CCSD.

       Link to Questionnaire: https://qmethodsoftware.com/study/ <studycode>
       Participation Code: <participationcode>

If you have questions, please feel free to e-mail me at mccoyj16@ferris.edu

Thank you!

Sincerely,

James R. McCoy

APPENDIX C: CONDITIONS OF SURVEY INSTRUCTIONS

Perceptions of Community Colleges Held by High School Guidance Counselors:

A Q Methodology Examination

IMPORTANT! Please read these instructions carefully before proceeding.

Instructions:

Thank you for agreeing to participate in this study. The methodology we're using is called Q Methodology and it may not be as familiar as other surveys you have experienced. However, by following the instructions below, your responses will provide us with rich insights that will help community college leaders better understand how community colleges are perceived by high school counselors.

- The researcher is interested in your viewpoints/opinions about community colleges. As such, please respond honestly and remember that there are no right or wrong answers.

- This study has three parts: An initial pre-sorting exercise, a complete sorting exercise and some brief post Q Sort questions.

- The researcher is interested in your viewpoints/opinions about community colleges. As such, please respond honestly and remember that there are no right or wrong answers.

- This study has three parts: An initial pre-sorting exercise, a complete sorting exercise and some brief post Q Sort questions.

<u>Pre-Sorting</u>

You will be provided with 75 unique statements representing on individual cards that reflect a variety of viewpoints about community colleges.

1. First, read through all 75 statements to become familiar with the statements.

2. As you read through the statements for a second time, you will be asked to do an initial pre-sorting exercise by indicating your level of agreement with each statement. You will press the **thumbs up** button if you agree with the statement, the **thumbs down** button if you disagree with the statement and the **question mark** in the middle if you are neutral or uncertain regarding the statement. In this first step, you are essentially organizing the statements into three piles based on whether you agree, disagree or are neutral/uncertain regarding each statement.

3. Once you have pre-sorted each statement, the statement cards will be represented into three piles on the screen:

    a. On the left, you will see the cards that you most **disagreed** with.

b. On the right, you will see the cards that you most **agreed** with.
c. In the middle, you will see the cards that you feel **neutral** or less certain about.

<u>Sorting</u>

Beginning with the **agree** pile of cards, drag and drop the cards that you **agree** with the most under the **+5** column. Next, place the cards that follow in importance under the **+4** marker, then cards under the **+3** marker, and so on.

Now move to the pile of cards you noted as **disagree**, place the cards that you **disagree** with the most under the **-5** marker. Next, place the cards that follow in least importance under the **-4** marker, then cards under the **-3** marker, and so on.

Continue this process until all the boxes are filled with a card. You are free to change your mind during the sorting process and switch items around—just drag and drop them on the grid as you need to.

When completed, you should have the following number of cards under each row:

+5/-5: 1 card; +4/-4: 2 cards, +3/-3: 4 cards, +2/-2: 6 cards; +1/-1: 7 cards; 0: 8 cards

- **1** card under markers **+5 (most agree)** and **-5 (most disagree)**
- **2** cards under markers **+4 (more agree)** and **-4 (more disagree)**
- **4** cards under markers **+3 (agree)** and **-3 (disagree)**.
- **6** cards under markers **+2 (somewhat agree)** and **-2 (somewhat disagree)**.
- **7** cards under markers **+1 (slightly agree)** and **-1 (slightly disagree)**.
- **8** cards under marker **0 (neutral)**.

Once all the statement cards are placed on the grid, please review the complete outcome of your sort to ensure they are placed on the grid exactly how they align with your level of agreement. If the grid looks good, click SUBMIT and you will be taken to the demographic and post Q sort questions.

<u>Demographic & Post Q Sort Questions</u>

Please answer all the questions and hit submit when finished.

<div align="center">

Thank you for your participation.

</div>

APPENDIX D: Q-SORT SURVEY

Perceptions of Community Colleges Held by High School Guidance Counselors: A Q Methodology Examination

Note from Researcher: The actual online survey was built by the researcher using https://qmethodsoftware.com/study/. However, the IRB has approved this document as the Q-Sort Protocol for this study.

Q-Sort Survey Protocol

Please answer the following questions. Your data will remain strictly confidential! Please do not indicate your name. Thank you for your willingness to participate in this study.

1) **Gender**: ____M   ____F

2) **Age:** _____

3) **Ethnicity (Check One):**
_____ African American
_____ Caucasian
_____ Hispanic/Latino
_____ Middle Eastern
_____ Native American
_____ Asian
_____ Other: _____

4) **Name of high school where you are employed as a Counselor:** _____

5) **Type of high school:**
_____ Comprehensive
_____ Career and Technical Academy (CTA) or Magnet
_____ Special Population (Behavioral, Adult School, etc.)

6) **How many years have you worked within secondary education?** _____

7) **Employment status as a Counselor**: ____Full-Time   ____Part Time

8) **Highest post-secondary degree you have earned**: _____

9) **Have you ever been a student at a community college?** ____Yes ____No

Q Sort Instructions:

1) Lay out **only** the number cards from left to right on the screen with the negative (-) numbers on your left as depicted in the following picture.

-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6

2) Read through all the cards to become familiar with the statements.

3) As you read through the statements for a second time, organize them into three piles:

- On the right, place the cards you **most** agree with.
- On the left, place the cards you **most** disagree with.
- In the middle, place the cards that you feel less certain about.

4) Beginning with the pile on the right, place the one card that you **<u>agree</u>** with the most under the **+6** marker. Next, place the three cards that follow in importance under the **+5** marker, then four cards under the **+4** marker, and so on.

5) Now, turning to your left side, place the **one** card that you **<u>disagree</u>** with the most under the **-6** marker. Next, place the three cards that follow in importance under the **-5** marker, then four cards under the **-4** marker, and so on.

6) Continue this process until all the cards are placed. You are free to change your mind during the sorting process and switch items around.

7) When completed, you should have the following number of cards under each row:

- **1** card under markers **+6** (<u>very strongly agree</u>) and **-6** (<u>very strongly disagree</u>).
- **2** cards under markers **+5** (<u>strongly agree</u>) and **-5** (<u>strongly disagree</u>).

- **3** cards under markers **+4** (<u>generally agree</u>) and **-4** (<u>generally disagree</u>).
- **4** cards under markers **+3** (<u>somewhat agree</u>) and **-3** (<u>somewhat disagree</u>).
- **5** cards under markers **+2** (<u>slightly agree</u>) and **-1** (<u>slightly disagree</u>).
- **6** cards under markers **+1** (<u>slightly agree</u>) and **-1** (<u>slightly disagree</u>).
- **7** cards under marker **0** (<u>neutral</u>).

KEEP YOUR CARDS DISPLAYED

- Now, type the card numbers in the diagram on the screen.

- After you fill in the diagram, answer the remaining questions.

- When all the questions have been answered, please hit submit.

Post Q Sort Questions:

1) Why did you place your "most agree" card under **+6?**
    Card #:_____

    _____
    _____
    _____
    _____

2) Why did you place your "most disagree" card under **-6?**
    Card #:_____

    _____
    _____
    _____
    _____

3) Were there specific statements that you had difficulty placing? *Choose one and please list the number of the statement and describe your dilemma.*
    Card #:_____

    _____
    _____
    _____
    _____

4) What has had the greatest impact on how you sorted your cards the way you did?

    _____
    _____
    _____
    _____

5) Is there a statement that you would have like to see in the sort? If so, what would the card have said and where would you have placed it? _____
   _____
   _____
   _____
   _____

Additional questions for study:
   1) Were any components of the Q-sort procedure confusing to you? How might you suggest a remedy for the issue? _____
   _____
   _____

   2) Do you feel there are any components that were missing?
   _____
   _____
   _____

   3) Do you have any additional comments? _____
   _____
   _____
   _____

APPENDIX E: Q-SET PERCEPTION STATEMENTS

Card Number	Perception Statements	Theme
1	Community colleges are not designed for exceptional students who have high SAT scores, and some students are too smart for community colleges and community college are really for those not prepared enough to get into a four-year university	Academic Preparation
2	If a student goes to a community college, graduate school, law school, medical school and U.S. Military Academies appointments are an option	Community College Student Profile
3	Community colleges offer courses to a variety of student populations--including students who are serving in the military, students who are working full time jobs, and students who are in prison	Community College Student Profile
4	Community college dual enrollment courses are better than high school AP courses	Dual Enrollment
5	Community colleges have student life opportunities such as athletics, student ambassadors, student government, student clubs and organizations	Extracurricular Opportunities
6	Community college faculty make connections with students and know their student's story	Faculty Quality
7	Community colleges are the cheapest way for parents to find out if their child is ready for college	Financial Cost
8	Community colleges provide access to modern equipment, technology, tools, and faculty with real-world experience.	Hands On Learning
9	Community colleges are relatively unknown and misunderstood by prospective students and their families	Parent/Family/Friend Perceptions
10	Community college is real college	Quality
11	Community colleges offer accelerated pathways with stackable credentials for students to earn high wages	Skill Development
12	High school guidance counselors positively influence a student's perceptions of community colleges	Society & Media Influence
13	Community colleges give students personalized attention and smaller class sizes	Support Structures
14	Jobs that require an associate degree can be high-paying jobs	Workforce/Career Preparation
15	People with four-year degrees come to community colleges to develop skills for work.	Workforce/Career Preparation
16	Community colleges offer pathways for students with GED's	Academic Preparation
17	Most community college students have a low socio-economic status and are these colleges are designed for lower- and middle-class students.	Community College Student Profile
18	Many community college students have responsibilities at home that they must juggle with their course work	Community College Student Profile
19	Dual enrollment at a community college gives students a jump start, reduces costs, and provides exposure to college	Dual Enrollment
20	Community colleges provides opportunities for international education/study abroad and global experiences	Extracurricular Opportunities

Card Number	Perception Statements	Theme
21	Community college faculty are teaching at the community college because they couldn't get a job at the university	Faculty Quality
22	Most students choose to focus on the value of education that the community college provides rather than the negative stigma associated with them	Financial Cost
23	Community colleges offer students service-learning opportunities	Hands On Learning
24	Community college is good because it is close to home and won't require living on campus	Practicality
25	Community colleges are excellent at delivering online education	Quality
26	Highly successful people have started their education at community colleges	Society & Media Influence
27	From the standpoint of a pyramid, community colleges are at the base (bottom), less selective four-year colleges/universities are in the middle and highly selective four-year universities are at the top. With community colleges being portrayed at the bottom of the pyramid, community colleges are less than desirable to attend compared to a more selective college or university.	Society & Media Influence
28	Community colleges provide students with excellent guidance	Support Structures
29	Community colleges are the same as vocational trade schools	Workforce/Career Preparation
30	Career and technical education from community colleges leads to jobs which are not well regarded in society	Workforce/Career Preparation
31	Community colleges have low academic standards and need to raise them, they are a good route for poot academic performers since they are not rigorous.	Academic Preparation
32	Students who attend community colleges do not wear college-branded clothing because they are embarrassed to be attending a community college and don't carry the pride of a four-year college	Community College Student Profile
33	While many students attend community colleges with a goal of earning a college degree, few actually do.	Community College Student Profile
34	The community college does not provide the "college experience"	Extracurricular Opportunities
35	Community colleges are an excellent value and offer a great return on the investment for students and offer opportunity to discover a passion and graduate with less debt	Financial Cost
36	Many community college students must work and earn money while in school	Flexibility
37	Community colleges are valued by a student's family/support network	Parent/Family/Friend Perceptions
38	Community colleges are more practical than a university experience	Practicality
39	The absence of difficult admissions criteria in the community college contributes to a negative perception that students who are not academically qualified for a four-year university must attend a community college to get a college degree because the courses are easier	Rigor

Card Number	Perception Statements	Theme
40	Community colleges should not be a goal for students to attend	Society & Media Influence
41	Community colleges offer a place of hope for those that think there is no hope of creating a better future for them and their families	Support Structures
42	Community colleges provide affordable transferable credits that enable students to transfer with university studies afterwards including at Ivy league universities	Transfer Preparation
43	Community college curriculum are closely aligned with workplace requirements to prepare students for careers that are critical in developing the workforce of the future.	Workforce/Career Preparation
44	Community colleges prepare students for high skill jobs with family sustainable wages in high demand jobs	Workforce/Career Preparation
45	A community college education is accessible to all, they meet students where they are regardless of academic preparation and background, and offer students endless possibilities for everyone with an open-door admissions policy for all	Access Mission
46	Community colleges are great options for recent high school students and all students should be told about the option.	Community College Student Profile
47	Community colleges do not collaborate with K-12 partners as well as the universities do	Community Partner
48	Community colleges offer programs that enrich the local community with the arts	Community Partner
49	Good community college programs attract new businesses and industries to a community and contribute positively to the economic health and economic development of the local community	Economic Development
50	Community Colleges offer work-based learning opportunities like internships and apprenticeships	Workforce/Career Preparation
51	You get what you pay for with a community college--lower price, lower quality and If community college education were "free," students would not find it be valuable	Financial Cost
52	Community colleges offer schedules that are more flexible	Flexibility
53	Community colleges are great; however, I would want my own child to go to a four-year college.	Parent/Family/Friend Perceptions
54	Community colleges offer high quality educational opportunities that transforms lives	Quality
55	The community college student experience is closer to high school than college	Rigor
56	There is a negative stigma associated with community colleges and students perceive them as the last option.	Society & Media Influence
57	Community colleges provide a feeling of community and family for students	Support Structures
58	Community college transfer students are prepared for college and just as successful in completing their bachelor's degree as students that start at a four-year school	Transfer Preparation
59	Community colleges provide options for students to advance in their careers and are well suited to help our workforce retool amid a changing economy	Workforce/Career Preparation

158

Card Number	Perception Statements	Theme
60	Community college provides a pathway to science, technology, engineering, and math degrees & careers	Workforce/Career Preparation
61	Community colleges are primarily a place for adults who are returning to school	Access Mission
62	Most community college students have lack of direction, wasted time in high school, had discipline issues, are lazy/troubled.	Community College Student Profile
63	Community colleges are a significant force in economic, social, and racial equity and are more diverse that four-year universities and provide equal opportunities regardless of gender, race, ethnicity, socioeconomic status, and age	Equity/Diversity/Inclusion
64	Community colleges have dedicated faculty with advanced degrees that offer high quality education since they prioritize teaching and learning over research	Faculty Quality
65	It is common sense to go to the community college the first two years. It is more cost effective to start at a community college and then transfer to a four-year school	Financial Cost
66	Community colleges provide opportunities for hands on experiences	Hands On Learning
67	Community college students are a failure for their parents, family, and friends	Parent/Family/Friend Perceptions
68	Community colleges are given research grants from prestigious organizations	Quality
69	A community college education provides a broad basis of soft skills and skills that are transferable to work.	Skill Development
70	Television shows, movies and the media portray community colleges as "less than" the four-year university	Society & Media Influence
71	Community colleges are more agile and meet students' needs better than four-year schools	Support Structures
72	Community colleges is an easier transition for students than going to a four-year school right out of High School	Transfer Preparation
73	Community colleges have stronger connections with business and industry to get jobs and business leaders value community college graduates	Workforce/Career Preparation
74	Community colleges offer the quickest pathways to good paying jobs	Workforce/Career Preparation
75	Community colleges provide opportunities to meet diverse students (race, age, financial)	Equity/Diversity/Inclusion

APPENDIX F: CORRELATIONS AMONG ALL PARTICIPANTS

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30	P31	P32
P1	100	7	25	2	13	4	1	55	26	30	42	32	22	17	15	40	25	-6	29	15	4	9	8	7	3	46	-1	23	22	7	16	24
P2	7	100	52	38	54	64	49	31	14	18	46	59	62	51	43	35	61	50	35	50	45	45	52	43	56	18	46	53	48	47	55	42
P3	25	52	100	42	57	53	51	30	9	17	53	60	55	36	42	29	47	41	44	62	46	43	52	56	61	16	37	51	45	53	54	33
P4	2	38	42	100	31	42	42	19	7	8	17	39	37	14	35	27	31	12	29	44	39	36	43	62	52	-1	51	42	33	54	44	39
P5	13	54	57	31	100	57	51	42	10	25	42	44	59	42	33	41	58	28	50	51	45	44	55	61	50	13	42	41	63	54	44	42
P6	4	64	53	42	57	100	54	35	7	17	49	72	60	42	39	47	71	32	38	60	43	57	57	65	59	18	56	53	72	63	52	51
P7	1	49	51	42	51	54	100	10	10	8	2	43	48	39	34	27	18	46	33	28	48	26	18	43	49	10	39	35	53	51	51	45
P8	55	31	30	19	42	35	10	100	11	31	28	39	40	24	24	43	46	50	26	15	36	26	24	15	1	29	13	30	35	23	34	20
P9	26	14	9	7	10	7	10	11	100	26	21	26	10	9	13	32	32	1	23	23	13	23	5	20	25	28	15	15	28	13	4	35
P10	30	18	17	8	25	17	8	31	26	100	30	50	21	25	6	24	30	22	33	36	15	14	31	23	51	33	34	21	32	40	25	31
P11	42	46	53	17	42	49	2	28	21	30	100	50	43	45	18	34	52	37	30	42	21	31	33	42	35	33	31	33	51	34	43	33
P12	32	59	60	39	44	72	43	39	26	50	50	100	58	49	33	49	61	26	43	51	43	49	50	27	61	27	49	51	67	52	41	53
P13	22	62	55	37	59	60	48	40	10	21	43	58	100	38	45	37	52	25	49	46	46	52	48	49	66	30	37	53	55	60	56	39
P14	17	51	36	14	42	42	39	24	9	25	45	49	38	100	21	37	49	34	26	35	32	34	47	26	24	8	26	48	34	37	44	30
P15	15	43	42	35	33	39	34	24	13	6	18	33	45	21	100	23	49	22	43	33	32	36	37	35	49	28	34	39	28	52	28	41
P16	40	35	29	27	41	47	27	43	32	24	34	49	37	37	23	100	53	11	35	36	17	32	53	27	37	26	32	33	46	32	32	32
P17	25	61	47	31	58	71	18	46	32	30	52	61	52	49	49	53	100	38	44	58	41	52	47	47	37	26	37	37	65	61	57	48
P18	-6	50	41	12	28	32	46	50	1	22	37	52	25	34	22	11	38	100	23	50	31	14	38	37	43	18	24	22	18	25	53	15
P19	29	35	44	29	50	38	33	26	23	33	30	26	49	26	43	35	44	23	100	46	33	42	32	44	41	16	41	22	39	45	48	30
P20	15	50	62	44	51	60	28	15	23	36	42	43	46	35	33	36	58	50	46	100	44	39	64	60	60	22	53	54	56	60	58	40
P21	4	45	46	39	45	43	48	36	13	15	21	49	46	32	32	17	41	31	33	44	100	33	60	55	53	20	42	51	39	50	42	39
P22	9	45	43	36	44	57	26	26	23	14	31	47	52	34	36	32	52	14	42	39	33	100	47	27	40	11	38	27	40	46	34	24
P23	8	52	52	43	55	57	18	24	5	31	33	50	48	47	37	53	50	32	35	64	60	47	100	61	11	21	44	49	65	72	11	45
P24	7	43	56	62	61	65	43	15	20	23	42	27	49	26	35	27	47	37	44	60	55	27	61	100	11	27	63	56	65	60	53	57
P25	3	56	61	52	50	59	49	1	25	51	35	61	66	24	49	37	37	43	41	60	53	40	11	11	100	11	48	44	46	19	34	26
P26	46	18	16	-1	13	18	10	29	28	33	33	50	30	8	28	26	26	18	16	22	20	11	21	27	11	100	22	27	19	21	48	24
P27	-1	46	37	51	42	56	39	13	15	34	31	49	37	26	34	32	37	24	41	53	42	38	44	63	48	22	100	59	59	68	58	60
P28	23	53	51	42	41	53	35	30	15	21	33	54	53	48	39	33	37	22	22	54	51	27	49	56	44	27	59	100	61	61	61	57
P29	22	48	45	33	63	72	53	35	28	32	51	65	55	34	28	46	65	18	39	56	39	40	65	65	46	19	59	61	100	61	56	70
P30	7	47	53	54	54	63	51	23	13	40	34	72	60	37	52	32	61	25	45	60	50	46	72	60	19	21	68	61	61	100	68	57
P31	16	55	54	44	44	52	51	34	4	25	43	62	56	44	28	32	57	53	48	58	42	34	11	53	34	11	34	57	56	68	100	53
P32	24	42	33	39	42	51	45	20	35	31	33	57	39	30	41	32	48	15	30	40	39	24	45	57	26	24	60	57	70	57	53	100