ABSTRACT

LEE, MELVINA. Community College Students' Viewpoints of an Outstanding Advising Process: A Q Method Examination. (Under the direction of Dr. Michelle Bartlett).

The effectiveness of the advising process is key to student success. The purpose of this study was to examine community college students' perception of the advising process to explore the expectations of students toward the advising process. It is difficult for advisors to meet student needs if expectations are unknown. Poor advising can impact community college outcomes in learning, completion/transfer, labor markets, and equity. By understanding students' perceptions of the advising process, improvements to student outcomes can help build quality interactions to increase student satisfaction. Q methodology was conducted to understand a participant's perception or opinion. This method allows the participant to develop a thought on the topic in a ranking order that requires the participant to rank the statements into a forced distribution. Extant literature on the advising process was used to develop the set of statements used to conduct the study to gain a better understanding of the viewpoints and perceptions of an outstanding advising process from community college students. There were 24 participants from an urban community college who were enrolled at the institution during the Fall of 2018. A post-survey was given to the participants to gather demographic information and gain an in-depth understanding about each of the participant's sort. The data analysis revealed six focus areas of advising expectations: Completion Focus; Information Focus; Trust Focus; Transfer Focus; Equality Focus; and Guidance Focus. The findings in this study revealed the viewpoints of community college students who have the most impact to the process. This study fills a gap in the existing research and provides recommendations for further research.

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Community College Students' Viewpoints of an Outstanding Advising Process: A Q Method Examination

by
Melvina Lee

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DEDICATION

I dedicate this dissertation to my husband Sean who hung in there with me through this long journey. To our son, Patrick, for missing all his football, rugby, lacrosse, and basketball games. To Harley (black lab) and Piper (yellow lab) for all the long walks that I had to cancel or shorten. I love all you guys and thanks for understanding.

BIOGRAPHY

Melvina Lee is currently a Relationship Manager with Wells Fargo Corporate Properties Group. She works in a consultative role with key business unit leadership to develop mid- and long-term real estate strategies in alignment with overall policies and business direction of the company as a whole. Prior to Wells Fargo, she was a Project Analyst with Merrill Lynch in New York City. Melvina holds a Bachelor of Science from Pace University in New York and a Master of Business Administration from Queens University in North Carolina. Melvina is an active volunteer with many community organizations.

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CHAPTER ONE: INTRODUCTION

According to the Office of Academic Advising in the Rutgers School of Arts and Science, academic advising is defined as an opportunity for information to be exchanged to help students arrive at their educational and career goals (Rutgers School of Arts and Science, 2018). Kuhn (2008) discussed the foundations of academic advising, stating that academic advising is where institutional representatives give directions and insights to students attending the college about their academic, social, or personal matters. These conversations can take many different forms, and may include suggestions, counseling, mentoring, or even a teaching lesson.

The significance of the advising experience will be different depending on the individual. There is a critical need to understand the current perception of students toward advising activities since students are the most impacted by advising. Woolston (2002) examined the process of advising undergraduates in engineering education. He found that advising was a problem for most institutions because of the educator's mindset and that engineering educators try to fix the problems with linear approaches, whereas advising is more interpersonal and philosophical. Woolston's (2002) described that engineering students were more interested and satisfied with academic studies than advising because academic studies are measurable with a grade and advising is subjective. The type of advising model used to advise students may strongly influence the student's perception of satisfaction on advising (Broadbridge, 1996). There are a variety of approaches that exist in academic advising; each approach is formed by the goals of the interaction between the advisor and student.

The two principal models of academic advising are developmental advising and prescriptive advising. The term "developmental advising" was first introduced by Crookston in a 1972 work titled "A Developmental View on Academic Advising." This approach sees advising

as collaborative with the focus on educators helping students explore and define their academic, career, and life goals. In this model, a relationship must be fostered between the advisor and student. Students may prefer this approach, though it requires a much higher commitment of time and resources compared to other models. According to Crookston (1972), the most important aspect of developmental advising is the relationship between the academic advisor and the student engaging in a series of developmental tasks. These tasks include reaching an agreement on who takes the initiative, who takes responsibility, who supplies the knowledge and skills, and how the information is obtained and applied.

The prescriptive model, known as the traditional model, is focused primarily on providing students with the information needed for their academic progression (Fielstein, 1994). In this model, the faculty member or advisor tells the student which courses to take and when to take them. Prescriptive advising is usually initiated by the student to address the immediate concerns a student may have in order to advance through their academic program. Crookston (1972) described prescriptive advising as the traditional relationship between an advisor and a student. He found it to be similar to a doctor/patient relationship where the advisor is the doctor and the student is the patient and indicates that in this scenario, the patient or student seldom takes ownership if something goes wrong (Brown & Rivas, 1994). Brown and Rivas (1994) explained that prescriptive advising is best suited for students who prefer a more directive advising style.

In practice, academic advising does not have to be restricted to one model or the other. There is no right or wrong in either model. To best meet students' needs, the appropriate model to be applied should be determined based on each student's unique circumstances. However, any model should be student-centered, so that the advising is supporting the growth and development

of the student with continuous contact between the advisor and the student. Regardless of the advising style, when both students and advisors have a good relationship, both parties will be more engaged and the quality of advising increases. Quality advising is more successful when there is shared ownership (Kramer, 2000).

Nature of the Problem

Reminiscent of the late 20th century, we enter into the 21st century with an educational system where community college students are still lacking essential skill sets, causing the United States to fall behind in developing the strong workforce needed to sustain communities (Wimbish, 2006). We need to foster student learning to help students succeed. Academic advising has been identified as a good indicator for predicting college student success. Pascarella and Terenzini (2005) found that academic advising can positively affect students' persistence and indicated that academic advising can play a role in students' decisions to persist towards their goal of graduating. Personal counseling also has a positive effect on persistence (Pascarella & Terenzini, 2005).

Light (2001) emphasized, "good advising is the single most underestimated characteristic of a successful college experience" (p. 81). In this research, both faculty and students said that good academic advising was a challenge. The study included colleges that ranged from highly selective to open admissions, both public and private, and the identified problems were the same. Although most college students are advised on their course of study, Light (2001) stated that academic advising is likely overlooked and an underestimated attribution of a student's successful experience in college. Frost (1991) believed that advising has both direct and long-term benefits for individual students. Establishing a trusted relationship, with consideration of the individual's circumstances, when advising with nontraditional students is an essential

element of their success. Students who have continuous, consistent relationships with at least one faculty member are more likely to discuss personal issues that may affect their academic performance (Sayles & Shelton, 2005). A positive advising relationship enables faculty advisors to help students discover their uniqueness.

The first year of college, specifically the first semester, is difficult for most students because it is a stage of transition (Cuseo, McLaughlin, Thompson, & Moono, 2010). The students need assistance from qualified advisors. Advisors must be student-centered and understand the range of diversity of these students. Cosand (1977) added that community colleges must be capable of identifying various levels of student needs, including personal needs. When advisors do not understand the needs of students, the advising becomes generic and advising is not tended to the specific needs of the individual students. Students with advising expectations that focus on career development, completion, equality, trust, or guidance have different expectations and requirements. By understanding the needs, advisors can provide the appropriate advising to the student expectations and requirements.

Problem Statement

There is a high possibility that students may be at a higher risk of dropping out if only academic factors are addressed (Lotkowski, Robbins, & Noeth, 2004). Much research recognizes academic advising as being an effective strategy for retention. Studies conducted by Cuseo (2003) have shown that a student's level of satisfaction with their experience at an institution is linked to that student's likelihood to remain at the institution. It is reasonable to expect that students who are dissatisfied with their academic advising will more likely leave their institution (Cuseo, 2003). With bad advising, there is a higher rate of students withdrawing from class. This was documented in a study conducted by Metzner (1989) that revealed first-year

students who experienced what they reported as “good quality” advising had a much lower withdrawal rate than students who described having experienced poor advising. Research has also shown students who utilized advising services were more likely to persist; whereas, students who prolonged indecisions was associated with higher rates of student attrition (Astin, 1977).

One of the challenges of studying advising is the different advising needs of students with varying characteristics, such as full-time versus part-time enrollment status, first generation or first-time in college students, ethnicity of students, and students with physical and learning disabilities. Every student may have experiences or challenges that become barriers. It is important to understand the barriers that different students face, such as first year students, as having knowledge of these barriers can assist advisors in helping students meet their needs.

Woolston (2002) found that student satisfaction with undergraduate education was high but their satisfaction with advising was the opposite. There may be some evidence that the advising model used by the advisor may have an influence on the student’s satisfaction with advising (Broadbridge, 1996). Ryan (2013) demonstrated that first time in college students were more likely to be retained and do better if they knew and met their academic advisor on a regular basis. The intention of this research study was to determine if either a developmental or prescriptive model impacts college students in a positive or negative way.

In a study about retention and academic achievement at a two-year institution, Ryan (2013) found that inadequate and incompetent academic advising had a negative impact on student retention. Poor advising can lead to retention concerns because students may experience frustration and leave or drop out. Bean and Metzner (1985) presented a model of the attrition process for non-traditional undergraduate students that came from a wide review of related literature. They provided a definition of nontraditional student in their study:

> A nontraditional student is older than 24 or does not live in a campus residence (i.e., is a commuter), or is a part-time student or some combination of these three factors; is not greatly influenced by the social environment of the institution; and is chiefly concerned with the institution's academic offerings. (Bean & Metzner, 1985, p. 424)

Bean and Metzner's (1985) model of academic advising is displayed in Figure 1, which provides a useful illustration of how a student's decisions related to their persistence in college is affected by several variables.

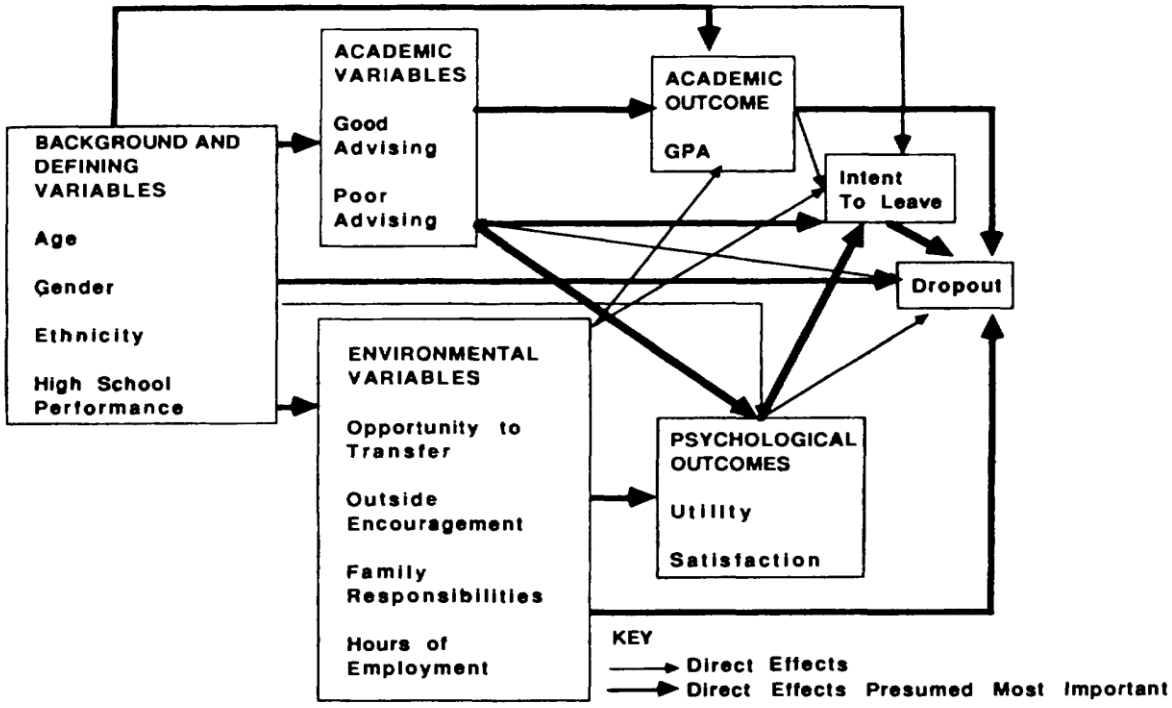

Figure 1. Bean and Metzner model of academic advising. Bean, J. P., & Metzner, B. S. (1985). Adapted from "A conceptual model of nontraditional undergraduate student attrition" by J. P. Bean and B. S. Metzner, 1985, *Review of Educational Research, 55*(4), p. 425.

There were other variables that were incorporated into the academic variable category of the model but only the advising variables were included to provide a more explicit understanding

of the influence in the student attrition process. Based on Figure 1, "the advising variables would be expected to affect dropout mainly through GPA, the psychological outcomes and intent to leave. It is within the framework of this model that the relationship of advising quality to student attrition was examined" (Bean & Metzner, 1985, p. 425).

One size does not fit all. Advising needs are different for every student and institutions need to look at incorporating different advising models. The advising models can influence the students' perception of satisfaction on advising. The goal of this research is to look at the alignment or misalignment of the different advising models and the link between student satisfaction and student expectations with advising. It is difficult for advisors to meet students' needs if their expectations are unknown. By understanding students' perceptions of the advising process, advisors and administrators can help build quality interactions to increase satisfaction and retention (Lotkowski et al., 2004).

Research has shown that students are dissatisfied with the advising they receive, and that much of this dissatisfaction is attributed to the lack of clarity in the role of the advisor (Allen & Smith, 2008). Instead of suggesting that faculty needs to do more to improve advising, institutions may need to consider if it is even reasonable to expect that any one individual would be able to provide all advising activities that the literature suggests are indicative of quality academic advising (Allen & Smith, 2008). Institutions need to look at different advising models to create a collaborative environment between faculty and student affairs professionals to ensure that students get what they need to succeed.

Many studies on advising have been conducted from a faculty or an advisor point of view, but little attention has been paid to perceptions of students concerning the advising process. Without proper advising and a seamless process, students may enroll in unneeded

courses, take longer to graduate, potentially encounter greater financial expenses, and thus become frustrated and change majors, or even withdraw from school entirely.

Improving the advising relationship requires the knowledge and understanding of each student's needs. The student must have assistance from qualified, student-centered counselors and faculty/advisors regardless of the age of the student, whether he or she is full- or part-time, or whether the student enrolls in the day or evenings. Students of different backgrounds, in various programs, with varying interests are naturally going to learn differently.

The process of academic advising is critical to institutions of higher education, and the role of the academic advisor is crucial to student retention and student satisfaction with the school (Lowe & Toney, 2000). It is possible that the advising model utilized by advisors can influence the student's perception of satisfaction on advising. Traditionally, institutions have practiced the prescriptive model in advising; however, one size does not fit all and it does not need to to be one model versus the other, as research has shown that no single advising model is appropriate for all institutions (Gordon, 1992). Building the relationship between student and advisor allows the advisor to see the student as a whole person and apply the appropriate advising model and style that will best fit that student at that time. Underprepared students may benefit more from the prescriptive model, where the advisors are dispensing information to the students, similar to a doctor/patient relationship and monitoring the progress. This prescriptive model is very one-directional and controlled by the advisor. The interactions that students have with their academic advisors are a critical part of influencing the student's retention. Academic advising can help students shape meaningful learning experiences, which in turn, change their life achievements and educational and career goals. Student satisfaction in the advising process is essential, as is evaluating the effectiveness and role of academic advising as a contributor to

student success, often measured by grade point average (GPA) and retention. Academic advising should be a learning process that incorporates interaction that leads to student learning and resulting in better advising relationships.

Advising is a significant issue in higher education and particularly to first semester students, whom may be "undecided" or are experimenting with different educational and occupational goals. First-time students may do better during their first term and be more likely to persist if they know their academic advisor are able to meet regularly during their first semester (Ryan, 2013). Advising services in community colleges are designed to help students make occupational choices and understand the relationship between the school and subsequent employment while also addressing a variety of personal and academic issues.

Overall student satisfaction and retention are related to student satisfaction with academic advising. The importance of student satisfaction cannot be overstated as it not only influences retention, but also contributes to academic, personal, and professional achievement. (Corts, Lounsbury, Saudgras, & Tatum, 2000). Because advising plays a significant role in student retention and graduation, additional effort must be made to ensure institutions are providing what students expect and need from successful academic advising. Advising and the successful retention of students has been found to go hand-in-hand (Tinto, 2007). Nutt (2003) stated that academic advisors provide students with the needed connection to campus services and this personal connection to the institution is the key to success.

Hale, Graham, and Johnson (2009) reported there is an adverse effect when there is a mismatch between the student's preferred advising style and their advisor's academic style. Sutton and Sankar (2011) found there were specific features of inadequate advising which include the advisor providing inaccurate information about course requirements and advisors

failing to share information about individual programs, sources of financial help, and career opportunities. Some of the other complaints from students included their perceptions that advisors were too overwhelmed to provide them with adequate advising (Haag, Hubele, Garcia, & McBeath, 2007) or advisors having insufficient time with the students (McCuen, Gulsah, Gifford, & Srikantaiah, 2009).

Poor advising can impact community college outcomes in learning, completion/transfer, labor markets and equity (see Figure 2). Estimates on a national level shows that on average, each community college counselor works with at least one thousand students (Wyner, 2014). With so many students, it is easy for students to not get the information required.

Figure 2. Four pillars outcome.

By understanding students' perception of the advising process, improvements to student outcomes can help build quality interactions to increase student satisfaction and retention. With technology becoming more and more in demand as a form of delivery, institutions need to modify the roles of educators to continue to devise a system that can not only assess where students are learning at the course level, but more importantly, assessments will be required to

see how gaps can be closed in learning (Wyner, 2014, p. 92).

An important factor for completion/transfer to be successful is understanding not only the programs but to understand the different types of student characteristics. There are several student characteristics that appear to be correlated to student success at an institution that includes the percentage of students from traditionally underperforming minority groups, the percent of federal Pell Grant recipients, the poverty level of the college's environs, and the percentage of part- versus full-time students. Understanding these variances can help institutions develop policies to respond better (Wyner, 2014).

Poor advising can derail students from making wise choices. By guiding students through pathways and letting them know what jobs are in demand, advisors can guide students to the right courses and programs, preparing them for the future. It is critical that community colleges keep up with the changing labor market conditions because the institutions are the connectors to the economic transformation (Wyner, 2014).

Community colleges serve a diverse population. Given the number of underprepared students and the limited government resources available today, it is difficult for community colleges to maintain broad access and diversity (Wyner, 2014). It is important that institutions understand the uniqueness of each individual student and what students' needs are so that when an institution is looking at closing the gaps, the right things are being prioritized.

Based on the Aspen Model, four pillars are critical to improve outcomes. The outcomes listed below in Table 1 need to be addressed in order not to get jeopardized with poor advising.

Table 1

Indicators of Community College Excellence

Outcome	Need to Define
Learning	Do colleges set expectations for what students should learn, measure whether they are doing so, and use that information to improve?
Completion/Transfer	Do students earn associate degrees and other meaningful credentials while in community college, and bachelor's degrees if they transfer?
Labor Market	Do gradates get well-paying jobs?
Equity	Do college work to ensure equitable outcomes for minority and low-income students, and others often underserved?

Note: Adapted from "*What excellent community colleges do: Preparing all students for success*," by J. S. Wyner, 2014, p. 5, Boston, MA: Harvard Education Press.

Purpose Statement

The purpose of this study was to examine community college students' perceptions of the advising process in order to explore the expectations of students toward the advising process. The advising model utilized can influence students' perception of satisfaction on advising, as the alignment or misalignment of the different advising models can be the link between student satisfaction to student expectations with advising. This information is critical as it can be difficult for advisors to meet student needs if expectations are unknown. The participants in this study were first-year students at an urban community college in a southern state. First-year students were selected as the first year of college is undoubtedly the most important year of the college experience because it is a stage of transition (Cuseo et al., 2010). The perception of students as it relates to the advising process is an essential key to identifying how the institution can better serve students and impact their path to successful completion. To fully measure the

effectiveness of the student perception of the advising process through a theoretical lens, it was necessary to also survey the advising models which are not focused solely on academic concerns.

Theoretical Framework

This study examined college students' perceptions of the advising process. The participants were first-year students from a large urban community college in a southern state. The study incorporated Baxter Magolda's (2001; 2008) theory of self-authorship in the context of first-year community college students' perceptions. Baxter Magolda (2001; 2008) draws from the student development theories of self-authorship and orders of consciousness to understand first-year, traditional-aged college students. The theory of self-authorship builds on the work of Kegan (1994) and explores how individuals make meaning of their experiences. Self-authorship is defined as "the internal capacity to define one's beliefs, identity, and social relations" (Baxter Magolda, 2008, p. 4). Baxter Magolda (2001) highlighted several developmental tasks associated with individuals in their twenties, including values exploration, making sense of information gained previously, determining the path one will take, and moving along that path.

Approaches to Academic Advising

Developmental advising. Frequently, the first encounter a student has with an advisor is at orientation, where prescriptive advising is taking place with individual students enrolling in classes based upon the results of their assessment and personal schedule. This prescriptive advising may eventually become developmental advising when additional visits are required to guide students in their study skills and transition courses (Fowler & Boylan, 2010). With decreasing resources and an increasing number of students needing assistance, advisors may feel restricted in time and quickly answer students' questions so they can move on to the next student, eliminating the process of developmental advising (Ohrablo, 2010). When the student

does not receive the assistance one expects, and must return for additional advising, this can cause frustration for the student, as well as contribute to advisor overload (Howard, 2005). With developmental advising, advisors need to understand the balance between content and direction versus the length of the advising sessions. Developmental advising does not necessarily require more time, but it does require strategy (Fox, 2008). "Developmental advising is concerned not only with a specific personal or vocational decision but also with facilitating the student's rational processes, environmental and interpersonal interactions, behavioral awareness, problem-solving, decision-making and evaluations" (Crookston, 1972, p. 78). Developmental advising requires a relationship that connects the advisor with the student so both can be actively engaged in developmental tasks that create a learning experience for both parties. Developmental advising requires the advisor to assess the student, anticipate any student needs, help the student explore options, and move the student forward, which is the most crucial segment to successful academic advising (Ohrablo, 2010).

A study conducted by Mottarella, Fritzsche, and Cerabino (2004) examined the advising variables that contribute to student satisfaction to determine how students judge their satisfaction with the advising they receive. Advising literature has demonstrated that advisors who use the developmental approach were considered warm and as knowing their students personally; however, the study also showed that the advisor's individual approach was more important than the advising model (Mottarella et al., 2004). The study's focal point was the importance of an advisor establishing a relationship with the student and channeling warmth and support in the relationship, and determined that the advising approach, or model used, will vary based on the needs of the student.

O'Banion (1972) established a more holistic model to advising and identified five elements critical to developmental advising. They include: 1) exploration of life goals; 2) vocational goals; 3) program choice; 4) course choice; and 5) scheduling courses. The result of academic advising is "to help the student choose a program of study which will serve the student in the development of their total potential" (O'Banion, 1972, p. 10).

With developmental advising, an advisor must develop new skills and knowledge not previously required in other kinds of advising. Advisors must know the student's characteristics and previous development, have an appreciation of the individual differences, and believe in the worth, dignity, and potential of all students (O'Banion, 1972). Advisors also need to avoid making quick decisions and acknowledge that a significant decision can be extensive and prolong the process. They must be able to appreciate a student's life goal even if they disagree with the student and steer clear of judgmental language that would derail the advising process (O'Banion, 1972).

O'Banion (1972) viewed advising as a personal process where the advisor must come to know much about a student's life in order to provide advice adequately. O'Banion (1972) concluded that it is ultimately the student who must choose a course of study and make a final decision and advisors are to advise and not decide. Advisors should not tell a student what to think, or how to feel, but rather aid the student through the process of getting to their life's goal. Crookston (1972) expanded on O'Banion's (1972) philosophy on developmental advising, claiming that advising should not be concerned only with course and career decisions, but that it needs to also assist in "facilitating a student's rational process, environmental, interpersonal interactions, behavior awareness, problem-solving, decision-making and valuations skills" (Crookston, 1972, p. 11). Creamer and Creamer (1994) defined developmental advising as "the

use of interactive teaching, counseling, and administrative strategies to assist students to achieve specific learning, developmental, career and life goals" (p. 19).

Prescriptive advising. In prescriptive advising, students are told what needs to be done to graduate. This format does not necessarily allow for students and advisors to build a relationship or recognize the importance of students having the autonomy to make their own choices (Hale et al., 2009). Students tend to desire interaction with their advisors (Light, 2001); however, many do not have a full understanding of an advisor's role. When the advisor and advisee meet early on, a clear explanation of the roles and responsibilities of the advisor can help close the expectations gap (Smith, 2002). In a study conducted at a university in the midsouth, of 429 students surveyed to identify the style of advising they prefer, 95% of respondents indicated they preferred the developmental advising style and 78% of the students were receiving this advising method (Hale et al., 2009).

According to Herndon, Kaiser, and Creamer (1996), prescriptive advising is described as a uni-directional method designed to answer specific questions that students may have about such topics as courses, majors, or institutional procedures. Prescriptive advising is believed to give students structure when thinking about their coursework. Because prescriptive advising does not teach the student new things about themselves, Earl (1988) specified that this advising approach is goal-oriented, focused merely on ensuring the student is completing the degree requirements needed for graduation. Although most traditional advising is of a prescriptive nature, this is advising directed to a specific kind of problem-solving. It is gradually being replaced by a more holistic and student-oriented developmental advising style (Al-Omari & Khasawneh, 2014).

Conceptual Framework

This study addressed whether the way the advising process is delivered to community college students is associated with students' perception of satisfaction with advising, advising learning outcomes, and student retention. The community college utilized for the research setting was originally thought to provide solely a prescriptive style of advising. However, after the Q-sort was conducted and participants responded to the post-survey in a narrative format, there was evidence that different styles of advising occurred according to the students and the advising was not solely prescriptive where students were just told what to do. Figure 3 represents a graphical representation of the conceptual framework for this study.

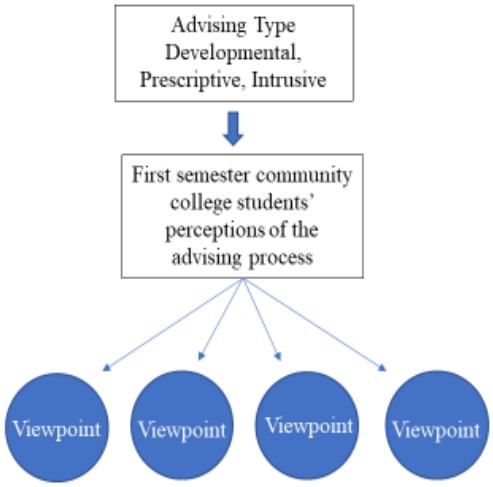

Figure 3. Conceptual framework.

Research Questions

Research Question 1: What are the viewpoints of community college students toward the advising process?

Research Question 1a: What are consensus items across viewpoints for the groups of students based on their viewpoints of the advising process?

Research Question 1b: What are the highest rated items for each group of students based on their viewpoints of the advising process?

Research Question 1c: What are the lowest rated items for each group of students based on their viewpoints of the advising process?

Research Question 1d: What distinguishing statements among viewpoints for each group of students based on their viewpoints of the advising process?

Significance of the Study

The primary focus of this study was to examine the perception of student satisfaction with the academic advising process at the community college. The choice of a major can be one of the most significant decisions a college student makes. This decision can shape the student's educational experience and is directly tied to their future career path. This study is significant as the findings have real world, hands-on implications for both the students and the institution through practice improvements to the advising models in order to build greater student success and retention. Given the role of advising in student satisfaction and success, this study contributes to the research on students' perceptions on the advising process to help reinforce and strengthen the learning experience through a student-centered advising process.

Limitations

Because advising is more subjective, this study was restricted to community college students from one institution and does not account for the perception of the advising process from the advisor's point of view, or the student population from other institution types, or beyond community college students. Another limitation was understanding the role of the advisor from a student's point of view. Community college students are diverse and comprise a population with vastly different individual needs. Individuals with different needs adapt to the

advising process differently.

Delimitations

Delimitations for this study were focused on community college students' perception of the advising process at one urban community college in a southern state. Individuals who participated in this study do not represent the entire community college student population; therefore, the knowledge obtained from this study may not be generalized to all community college students. Because this study solely focused on community college students, the student population outside of the focus will not be included, and only a few demographic characteristics of the participants will be considered.

Definition of Terms

The following section defines terminology used throughout this research paper. Knowledge of the terminology will help readers understand the advising process, policies, and procedures. To help the reader gain a deeper understanding and appreciation of these concepts, some terms will contain more elaborate explanations than others.

Academic advising: Academic advising takes place in "situations in which an institutional representative gives insight or direction to a college student about an academic, social, or personal matter. The nature of this direction might be to inform, suggest, counsel, discipline, coach, mentor, or even teach" (Kuhn, 2008, p. 3).

Advisor: Defined as non-faculty staff members whose main responsibility is providing holistic academic-oriented support services to college and university students (Lee & Metcalfe, 2017).

Advising process: The process of academic advising includes the following dimensions: 1) exploration of life goals; 2) exploration of vocational goals; 3) program choice; 4) course choice; and 5) scheduling courses (O'Banion, 1994).

Community college: Any not-for-profit institution accredited to award an associate of arts or associate of science as its highest degree. A community college may also award various program certificates (Cohen & Brawer, 1996).

Developmental advising: A systematic process based on a close student-advisor relationship intended to aid students in achieving educational, career, and personal goals through the use of the full range of institutional and community resources (Crookston, 1972).

First-generation student: The definitions of first generation range from the first in their immediate family to attend college, to neither of the student's parents graduating from a four-year college, to the first in the family to pursue education beyond high school (Gordon, Habley, Grites, & Associates, 2008).

Non-traditional students: Non-traditional students are aged 25 and older and have returned to school to earn a degree, an advanced degree, a professional certificate, or a GED. Many are lifelong learners who know that keeping their brains engaged keeps them young and vibrant longer (Peterson, 2017).

Perception: Physical sensation interpreted in the light of experience (Merriam-Webster, n.d.).

Prescriptive advising: Prescriptive advising is focusing on authority-based answers to specific questions. Advisors who use a prescriptive advising approach do not take total individual development into consideration (Jordon, 2000).

Retention: Retention is defined as consecutive fall-to-fall enrollment (Windham, Rehfuss, Williams, Paugh, & Tincher-Ladner, 2014).

Organization of the Study

This study is organized in a traditional five-chapter format. Chapter 1 presents the overview of the advising process and outlines the purpose and research questions for this study. Chapter 2 details a review of the literature relating to the evolution and history of the community college, the community college advising process, impact of advising on student success, advising styles, and students' and advisors' perceptions of advising. Chapter 3 describes the research design of the study, selection of the sample, and the procedures for collecting and analyzing the data. Chapter 4 provides the findings and presents the data analysis related to the research questions. Chapter 5 summarizes the study, draw conclusions formed from the data analysis, and identifies recommendations to improve the efficiency of the advising process. Chapter 5 will also present potential suggestions for further research.

CHAPTER TWO: REVIEW OF LITERATURE

Two-year colleges are institutions where the highest award granted is a two-year degree, such as an associate of arts, associate of science, associate of general studies, associate with applied arts, or associate of applied science (Cohen, Brawer, & Kisker, 2013). Community colleges frequently provide a blend of general and liberal education courses, career and vocational education courses, and adult and continuing education programs. Community colleges offer open access to higher education that provides a flexible and adaptive form of higher education that is tailored to local community needs (Cohen et al., 2013). The community college has thrived since its early inception in the 1800s and has become a center of educational opportunity that provides open access to all (Kramer, 2000). Community colleges tend to enroll a population of students who have high levels of educational, economic, and social barriers in their education and have the least amount of resources per student (Bailey & Morest, 2008).

More than 12 million Americans were looking for employment in 2012, and approximately five million were unemployed for over six months. Of the unemployed, 4% represented bachelor's degree holders, and 7% had an associate degree or some college experience (U.S. Bureau of Labor Statistics, 2012). Because we do not know if jobs that have been downsized or sent overseas will ever be brought back to the United States, students need the skills required to compete for local, skilled positions. The American economy may depend on additional degree holders and community colleges need to continue preparing students for local jobs that are the least likely to be outsourced (Cohen & Brawer, 2013).

A more skilled workforce is key to the country's continued economic growth, a need that called for a dramatic increase in student success (Boggs, 2010). Every community college is different, but they are all linked to the shared goals of access and service. While open

admissions and a tradition of lower tuition costs are some of the commonalities between community colleges, the rate of success will vary greatly between institutions, as access alone is no longer a sufficient measurement of success for community colleges (Bailey & Morest, 2007). The field of advising has been slow to change throughout its history in higher education, (Habley, 2000). King (1993) suggested that academic advising and the role the faculty plays in its delivery is among the most critical services provided to community college students. The mission of community colleges continues to reshape, the change in direction is still unclear, and a consensus on the future purpose has not yet emerged (Clowes & Levin, 1989). According to Bailey, Jenkins, and Smith Jaggars, (2015), community colleges have been under reformation for over a decade with a focus on the intake system and developmental education, but few colleges have moved the needle on overall rates of student completion. Bailey et al. (2015) argued that if colleges want to improve the outcomes of a large number of disadvantaged students, the practices and policies fundamentally needs to be redesigned. Colleges need to create clear, educational, and coherent program pathways that will align with students' goals to help them explore their interests and track their progress rather than expect students to find their own way blindly through the process (Bailey et al., 2015).

Historical Overview of Community Colleges

It is essential to understand the historical context of the development of community colleges. Community colleges have roots dating back to the Morrill Act of 1862 (Land Grant Act) and have expanded through modern times granting wider access to public higher education (Drury, 2003). This historical overview also explains the inclusion of various populations in community colleges and why a large population of individuals were denied access to higher education at different points (Drury, 2003). There were many social, political, and economic

forces that impacted the expansion and accelerated growth of two-year community colleges, including what has come to be seen as an elitist movement by administrators of universities (Drury, 2003). Because higher education leads to upward mobility and a better way of life, society believed that having the opportunity to obtain a college education should be available to all students who have a desire to attend college and to profit from this experience. This was portrayed with the boom of community college enrolled that was marked by the Great Depression. From 1929 to 1939, community college enrollment increased from 56,000 to 150,000 (Brint & Karabell, 1989). The expansion of community colleges also created a sense of belonging for local citizens (Drury, 2003).

In *Medieval Universities,* Schachner (1962) wrote about higher education attracting only the wealthy and access being limited to members of the higher socio-economic classes. Paying to attend college is a significant challenge for low-income families, as tuition can cost upwards of half of their annual income (American Association of Community Colleges, 2017). The thought processes, habits, economic status, and social interactions of people were beginning to change in the early part of the 20th century, which enhanced the outlook for access to education for many in America (Drury, 2003). During the last half of the 19th century and early 20th century, educational leaders advocated removing the first two years of higher education from the university and placing them in a separate institution called the junior college (Larimer, 1977). This move was strongly influenced by the German model of higher education and spearheaded by Tappan, an American university president, who was dissatisfied with the status of American higher education and saw superiority in the German model (Larmimer, 1977). The goals stated by educational leaders was to concentrate on research and the discovery of new knowledge in the universities while the two-year colleges were to focus on the less demanding, first two-years of

college in the general liberal arts (Larimer, 1977). Underprepared students or those otherwise unable to gain admissions to universities now had opportunities at two-year colleges.

Community College Advising

Community colleges have traditionally served underrepresented students who attend part-time due to other obligations such as jobs and family (Fike & Fike, 2008). Approximately 45% of entering community college students are academically underprepared, which can complicate matters and require them to enroll in developmental courses in reading, writing, or mathematics (Fike, & Fike, 2008). Because community colleges have open door policies of admissions, these are often the only option for these students who might not otherwise have a chance to experience higher education (Bryant, 2001).

In a perfect world, an advising process should follow a step-by-step process to be most effective. All students, regardless of enrollment status, should obtain advising each term, and most colleges require new students to attend orientation (Gordon, 1992). A 2016 SENSE report showed that among 62% (N=37,316) of entering students who reported meeting with an advisor before registering for classes their first term, 73% said being required to meet with an advisor before registering for classes was beneficial (Center for Community College Student Engagement, 2018). In addition to advising, colleges should also leverage other campus policies and procedures or structures that may influence advising, such as having guided pathways. According to the 2017 Community College Survey of Student Engagement, which measured which students were most engaged, students who said that an advisor helped them develop an academic plan were more involved. In addition to aiding students in choosing a major and courses, advising should also cover career exploration. The intensity of advising required for each student will be different. Of the 67,954 students who were surveyed, 16% of students said

their first advising session was more than 30 minutes, 47% said it was between 16 – 30 minutes, and 31% said it was less than 15 minutes. A new student may require more time for an advisor to understand the student's needs as compared to a second-year student who has been meeting with their advisor on a regular basis (Center for Community College Student Engagement, 2018). As colleges continue to change the approach in advising, they must also be rethinking all aspects of advising to include who is required to have advising, what is included, and how intensive the advising is expected or needs to be.

While advising is recognized as an important factor in student success, many students, especially first-year students attending community college, do not receive either enough or appropriate advising from their advisors. Orozco, Alvarez, and Gutkin (2010) found that approximately half of the African American and Hispanic students they interviewed had never seen an advisor. From 1976 to 2009, the percentage of college students who are Hispanic or African American has increased from 3% to 12%, and 9% to 14%, respectively (Harding, 2012). Over the next 35 years, the number of minority students, African American and Hispanic in particular, is expected to increase significantly (Roscoe, 2015). Advisors will need to understand the unique challenges for these populations to help them be most successful. Results from a 2014 survey from the National Survey of Student Engagement (NSSE) measuring which students are most or least engaged revealed similar patterns. The findings indicated that first year African American and Latino students rated the quality of their interactions with advisors to be lower than their white counterparts. Of the 159 first-year students surveyed, 58% of African American students expressed they had lower interactions than their white counterparts. Similarly, 58% of Latino students surveyed also reported lower interactions than their white counterparts (NSSE, 2014).

Minority students tend to be first-generation students at the community college and may not be knowledgeable about the college-going process or understand how advisors can best assist the student (Heissner & Parette, 2002). Minority students, such as African Americans and Hispanics, have frequently been perceived by high school teachers and counselors as not being college material, making them hesitant to seek assistance based on cultural barriers and their past experiences (Orozco et al., 2010). This type of attitude can discourage students from attending college or create the negative perception that they will not succeed in college (Hubbard & Stage, 2009). Because of this negativity to college and the resultant low expectations, advisors are in a position to be institutional agents to promote fundamental development as well as a social source for these students by providing equal access to the information and resources needed to be successful (Stanton-Salazar, 1997).

Building relationships create shared responsibility for the student's success (Rawlins & Rawlins, 2005). When the student begins to have problems and is in danger of dropping out, a shared responsibility relationship between the student and advisor allows the advisor to intervene when a red flag is raised (Escobedo, 2007). Tinto (2008) described that many students who are academically underprepared with low-income backgrounds measure their success one course at a time instead of by academic year. This is important to note and reiterates the need for early interventions while there is time to salvage the course (Levin & Levin, 1991). Some students reported that their advising experience has often been confusing and unhelpful because they believed that their advisors lacked adequate knowledge about their majors, and therefore, they received poor advising on which courses to take (Zell, 2010). Because first-year students get inadequate information and guidance about what they need to be successful, it is believed that many first-year community college students drop out due to this lack of knowledge and support.

Advising should be an on-going process and building a relationship between the student and advisor will make it easier for the right plan to be developed for the student to make the best choices to succeed.

Community college students tend to attend classes less than full time and have work and family responsibilities, as such, their time on campus to take advantage of the various student support services, including advising, is limited (Fike & Fike, 2008). Community college students are usually less socially engaged and participate less in campus activities at the college due to these outside obligations (Bryant, 2001). This becomes a more significant problem for students who attend classes in the evening, when the service-related offices are frequently closed (Donaldson, McKinney, Lee, & Pino, 2016). Opportunities to establish a stronger relationship with student service personnel, particularly advisors, are thus limited.

Research found that establishing a strong institutional connection with students improves retention, persistence, and success (Williamson, Goosen, & Gonzales, 2014). This particular study involved two groups of students, with Group 1 not attending any advising sessions while Group 2 students attended at least one faculty advising session. Williamson et al. (2014) described:

> The college compared the within-term retention rates (completing the attempted course with a grade of A to F), A-C course success rates (earning grades of A, B, or C in course attempted), and percentage of students earning a term GPA of 2.0+ between both groups. The analysis indicated that 76% of students who attended two faculty advising sessions had a GPA of 2.0 or higher, whereas only 22.5% of students who did not attend any faculty advising sessions had a GPA of 2.0 or higher, whereas only 22.5% of students who did not attend any faculty advising sessions had a GPA of 2.0 or higher in the Spring

> 2013 semester. The most dramatic impact in this study was seen in male African American males who attended at least one faculty advising session. African-American males who attended at least one faculty advising session earned an A-C success range on average of 49.6% in all courses taken that semester versus an 8.5% success range on average for those who did not attend any faculty advising session. (p. 22)

There is more work required, but the results from this study show that the college has found some answers on how to help students stay in college and show significant success in all their classes (Williamson et al., 2014). The organization and delivery of advising services by the institution plays a vital role in the development of the advisor-advisee relationship and the overall effectiveness of the influence on retention and success.

Academic Advising

Advising is one of the primary ways that colleges and universities attempt to increase retention, persistence, and graduation rates as well as have an impact on overall student success (Habley, 2004). The process of academic advising is critical to institutions of higher education, and the role of the academic advisor is crucial to student retention and student satisfaction with the institution (Lowe & Toney, 2000). Academic advising has evolved from a routine, single-purpose, detached, faculty activity into a complete process involving academic, career, and personal development (Grites, 1979). Academic advising helps students learn to become members of their higher education community, think critically about their role and responsibility, and be prepared to be an educated citizen in society (Kimball & Campbell, 2013). Advising functions should include advising that helps students connect their academic, career, and life goals. Referral to on- and off-campus resources should also be part of the advising functions (McFarlane, 2014).

Retention

Research supports the concept that academic advising affects student retention rates (Backhus, 1989). The process of academic advising is essential to higher education and the role of the advisor is critical to student satisfaction at the institution. When students are actively involved with advising and the institution, this involvement serves as an agent to connect the students with the institution and improve retention (Frost, 1991; Tinto, 1987). Retention is essential for many different reasons. From the institution's perspective, retention is necessary for financial stability and sustainability to academic programs (Fike & Fike, 2008). With increasing demands of accountability from state and federal legislatures, the pressure is placed on community colleges to improve student outcomes (Kimbark, Peters, & Richardson, 2017). Although the number of students enrolling in higher education has increased at community colleges, the success rate for completion remains static (Kimbark et al., 2017). A study was conducted at a Texas institution to determine if there was a relationship between participant enrollment in student success courses provided by support services and persistence, retention, academic achievement, and student engagement. These courses provide the student with information about the college, assist them in academic and career planning, and help them develop techniques to improve study habits and other personal skills. This course also offers students an orientation to the different services available at the college. The findings from this study indicated a positive correlation between enrollment in success courses and outcomes (Wirth, 2005).

While more students are enrolling in courses at community colleges, there is no guarantee that community colleges are meeting students' academic goals. Murray (2010) stated that the challenge of retention is a severe issue for community colleges because of the broad range of

students that it attracts. According to Elizabeth Cox, Assistant Director of the California Community College Collaborative, the first step toward retention is being aware of the cultural differences in the students who enroll at the community college, as well as making sure advisors have the skills to identify students' needs. Cox stated:

> We need to know the students that we are serving and how to serve them beforehand and find out what it is that they need. Older students do not necessarily see themselves as students first. Many of these learners are family men and women who have spent years in the workforce and view their continued education as one more thing to do in a long line of responsibilities. [These learners] come to community colleges, especially if they are coming for retraining, for a specific purpose. They know exactly what that purpose is, and they are very driven for that. Because they do not have time to waste, unlike younger students, many of who have an interest in theory and concept, older students have a more significant concern for practical applications for what they are learning. (Murray, 2010, p. 35)

Diversity

Student success starts with access. Racial and ethnic minorities make up a significant portion of the undergraduate student population, but access is useless unless the students have the opportunity to be successful. Some students are accustomed to a community environment amongst friends and family, while the culture in higher education often operates very differently. The culture in higher education is more individualized, where decisions are made based on the individual's values or preferences. Students require more than basic academic skills to be college ready; for these students to be successful, they need advisors who can help them navigate and become part of this new culture (Strayhorn, 2014).

Community colleges have a unique setting with a diverse population of students from various backgrounds, ethnic groups, ages, skill levels, and aspirations (King, 1993). With this full range of diversity, colleges need to be organized to meet the academic needs of not only the traditional students, but also of the non-traditional students. For many students, the advisor is the link between the student and the college. How the advising services are organized and delivered by the institution is frequently based on four factors: 1) the mission of the institution; 2) the nature of the student population; 3) the role of the faculty; and 4) the programs, policies, and procedures of the institution (King, 1993).

Impact of Advising on Student Success

Lowe and Toney (2000) stated that advisors play a significant role in student retention and in the overall satisfaction of students with their college experience. Effective advising is therefore a critical component for student success and retention in higher education (Nealy, 2005). There is some disagreement amongst theorists regarding the adviser-advisee relationship; however, according to Allen and Smith (2009), effective advising needs to be a meaningful program providing information about available courses, knowing and informing students on administrative procedures, and being responsive to students' needs and personal problems. Proper and consistent advising can help a student define their educational and career goals, avoiding missteps that could derail their college success (Ohrablo, 2017). Students who receive accurate, timely, and frequent advising are more likely to persist and be retained than students who do not (Lowe & Toney, 2000). Students who meet with advisors on more than one occasion were found to be most successful (Wirth, 2006). Tinto (1993) stated that students who feel isolated or believe that college personnel do not care are more likely to withdraw from their

courses. Advisors are critically important for first-time college students who have difficulty navigating through the college experience (Lau, 2003).

Many students may be content to receive limited prescriptive advising in the form of being told which courses to take (Rawlins & Rawlins, 2005; Smith & Allen, 2006). Other students, especially non-traditional students, may feel uncomfortable with this format and benefit more from developmental, or friendship-based, advising. In this form of advising, a friendship is encouraged between the advisor and advisee, allowing the student to seek out an advisor they are comfortable with for guidance and encouragement (Petress, 1996; Rawlins & Rawlins, 2005). It is assumed that the advisor has some level of flexibility, availability, and accessibility to create a friendship-based advising process.

A common theme about academic institutions in the United States is that institutions are being pressured to improve student retention rates and reduce the time it takes students to graduate (Soni, Kosicek, & Sandbothe, 2014). Lower student retention brings less revenue for the institutions to support faculty and staff (Crosley & Scannell, 2017). According to Pascarella and Terenzini (1991), while it costs more to recruit new students than it does to retain current students, institutions often focus on student recruitment rather than student retention.

To increase student success, academic advising needs to be improved (Carlson, 2017) and there needs to be an alliance between academic and career advising for better student outcomes (McCalla-Wiggins, 2009). Research has shown that in the United States, 30% of college students do not return for their second year (Bowler, 2009) and that the six-year completion rate for all freshman students is only around 52.9% (Shapiro, Dundar, & Wakhungu, 2015).

Institutions need to start thinking more about long-term changes to not only promote but redefine student success (Maple, Harris, & Greco, 2010). Helping a student enter college is

easier than it is to help the student identify the college major that best fits the student's personality, interests, and strengths. More often than not, majors and degrees are suggested with very little information about the student's individual needs or motivation (Gordon & Steele, 2003).

According to Carlton (2015), a new approach will be required to increase student retention, with both students and advisors being proactive, versus passive, in career advising at the beginning of the student's academic career. This approach may require a more formalized advising process. When students decide on a degree of interest, we must be able to understand why and determine if the student has the likelihood to be successful down that path. Choosing a career needs to be supported through organized and planned steps until graduation. There should also be industry representatives in the process, and should a student decide to change career pathways, there must also be a formalized process to maintain the clarity and direction of the academic career (Tudor, 2018). The 2016 Gallup-Purdue Index Report showed that students who are interested in career advising have to often seek out the service themselves instead of advising being a requirement by the institution. With the fluctuation and uncertainty of today's job market, students who have positive attitudes and influences in their career planning will have an advantage (Stoeber, Mutinelli, & Corr, 2016). This new model that makes it mandatory for students to create a plan from the first day of college may reduce or eliminate students being left on their own to figure out their futures (Locke & Lathem, 2002).

For weaker students, having only a vague idea of their future can also be problematic (Thompson & Prieto, 2013). Early career planning may help struggling students to balance their priorities (Gerdes & Mallinckrodt, 1994). In the United States, of students who graduated between 2010 and 2016, 17% found their career advising very helpful and only one in 10

industry leaders found the graduates they hired to be fully prepared for their careers (Gallup Inc., 2016). The argument can be made that students truly do not know what they want in their career until they have some work experience, since courses in a degree program do not always accurately reflect the workplace environment (Tudor, 2018). When careers and students are better matched, the students make better employees who are less likely to quit their jobs, while the institution's reputation will increase, as employers prefer to hire students with thought-out, realistic, and passionate career goals (Brito, 2012).

This process is not as time-consuming as some may think. While the career progress requirements do take time and effort, it is a process conducted in sections over multiple years, monitored and managed by the advisor, and is therefore, not as burdensome. Any process that creates a greater probability of success is worth the effort (Davis, Carson, & Ammeter, 2005). For increased chances of students to succeed in graduation and have a fulfilling career, students must have confidence in their goals. There is a link to better retention, faster completion rates, and higher graduation rates when there is early career planning (Tudor, 2018).

Developmental Versus Prescriptive Advising

Along with guiding students in their course registration, understanding and addressing the developmental stages that students encounter in college, and recognizing what challenges students will face, is called developmental advising (Broadbridge, 1996). In this model, the role of the advisor is not only in helping the student register for the appropriate coursework that will lead to completion, but also recognizing, exploring, and facilitating the student's interests and skills in order to guide them to the career best suited for the student (Crookston, 1972).

Historically, the function of advising was mostly clerical. To fulfill graduation requirements, the advisor would check the requirement box and list appropriate coursework

(Broadbridge, 1996). In prescriptive advising, the relationship between the student and advisor is often insufficient, where the advisor primarily dictates the course schedule for the student (Crookston, 1972). The prescriptive advising philosophy pays very little attention toward the student as an individual or has little interest in developing the student's growth areas. There has been a shift in focus from prescriptive advising to viewing students as a whole being, emphasizing the developmental advising philosophy (Frost, 2000).

The goal of developmental advising is to help the student become more independent and aware of themselves and learn to recognize the paths to utilizing the resources that are available to them on their own (Crookston, 1972; O'Banion, 1972). Student learning should be viewed from the perspective of educating the person as a whole, both academically and through personal development. Contrary to previous research, where students preferred the developmental style of advising, a study conducted at the University of Albany found that first-year students preferred the prescriptive advising because it was similar to their experience with high school counselors (Smith, 2002). Other studies have shown that the largest impact on students depends on the advisor's approach to advising over the model of advising (Mottarella et al., 2004).

Regardless of the students' style preference in advising, further research will be required. One model does not fit all, and the model alone may not improve student satisfaction. Advisors need to factor in the advising needs and evaluate both the issue at hand and the individual student in order to identify the style that will work best (Weir, Dickman, & Fuqua, 2005). In some cases, a mixed model of advising may be required. The advising styles that students need will often be dependent on the context of the individual advising session as well. Mottarella et al. (2004) found that students tend to prefer the advising that they are already accustomed to receiving.

In prescriptive advising, the advisor is presumed to be the authority and decides what courses the student should take, with little input from the student. There may be a short conversation about the student's abilities, concerns, interest, or career aspirations. Prescriptive advising serves the primary purpose of providing students with the necessary information and paperwork as efficiently as possible (Smith & Allen, 2006). This style may be acceptable to first-year students who are unfamiliar with the process or students who prefer to be told what they need by an advisor; however, because many students will then see the advisor as an authority figure, they may not question the accuracy of the information given.

More and more colleges are beginning to implement a developmental advising style and it has become the more predominantly used method in today's advising. The emphasis in the developmental advising style is to be inclusive and factor in the student's input to encourage conversations between the student and advisor in regard to educational and career goals (Grites, 1985). It is assumed that this shared responsibility between the advisor and student for academic development increases student success. Mottarella et al. (2004) found that non-traditional students prefer a developmental advising style because of the perceived benefits the students receive from advisors who take more time to get to know them and track their individual academic progress.

A comparison of the 10 central components that Crookston (1972) identified for the relationship between the academic advisor and the student that separates prescriptive and developmental approaches to advising is displayed in Table 2. The ten central components are abilities, motivation, rewards, maturity, initiative, control, responsibility, learning output, evaluation, and the relationship itself. The major difference between the prescriptive and developmental styles is the amount of involvement a student has with the advisor during the

decision-making process. In prescriptive advising, the advisor focuses more on the student's limitations, with the advisor taking more of the initiative and giving direction to the student. When using the developmental style of advising, the advisor is focusing more on the student's potential and this style includes open and engaging conversations with the holistic student. Decisions are jointly made and not one-sided. Regardless of the style, the focus should always be student success. Not all students will adapt the same way, and their perception of the advising process will be determined on the model and relationship that works best for that individual versus a one style to fit all approach.

Table 2

Crookston's contrasting dimensions of advising

Component	**Prescriptive Advising**	**Developmental Advising**
Abilities	Focus is on limitations (i.e., the adviser uses student's past performance to predict future obstacles.	Focus is on potentialities (i.e., the adviser uses past performance and current aspirations to anticipate potential).
Motivation	Students are viewed as passive, lazy, irresponsible, and in need of help and prodding.	Students are viewed as competent, striving, and active seekers of information.
Rewards	Students are motivated by grades, credit, income, and parental threats.	Students are motivated by mastery, achievement, recognition, status, and fulfillment.
Maturity	Students are immature, irresponsible, and must be closely supervised.	Students are responsible, maturing, and capable of self-direction.
Initiative	Adviser takes initiative on fulfilling requirements; any additional advising is initiated by the student.	Either the adviser or the advisee can initiate advising.
Control	Adviser is the authority and is in control.	Control is shared and negotiated.
Responsibility	Adviser's responsibility is to provide advice and the advisee's responsibility is to act upon the adviser's advice.	Responsibility is negotiated and/or shared.

Table 2 (continued).

Learning Output	Student learns from the adviser.	Both the student and the adviser learn and develop.
Evaluation	Adviser evaluates the advisee's progress.	Evaluation is an adviser/student collaboration.
Relationship	A formal relationship exists between adviser (authority) and student (dependent), which is based on status, strategies, games, and a low level of trust.	The adviser/student relationship is informal, flexible, situational, and based on a high level of trust.

Note: Adapted from "A developmental view of academic advising as teaching," by B. B. Crookston, 1972, *NACADA Journal, 27*(1), p. 129-131.

Student's Perception of Advising

Even though there was a rapid increase in enrollment in the 1960s and 1970s, community colleges often could not increase the number of advisors due to limited resources (Gordon, 1992). According to Gordon (1992), academic advising is a critical service in which students are assigned educational planning that incorporates the student's personal goals and aspirations. Academic advising has been defined many times in the history of America's institutions of higher education, and due to the changes in the demographics of the student bodies (socioeconomic status, enrollment status, ethnicity, and the increasing number of non-traditional students), many colleges are working on strengthening the role of the academic advisors (Gordon, 1992).

Grites (1979) defined academic advising as a "decision-making process that students need to realize their maximum educational potential through communication and information exchanges with an advisor" (p. 1). Creamer (2000) described academic advising as an educational activity that assists college students in making decisions in their personal and academic lives, while Frost (1990) stated that advising has moved from just providing students with information to student-centered services that address the needs of the institution as well.

Midgen (1989) defined the duties of an advisor as a staff member who assists students' in designing individual academic plans to be consistent with their academic interests and abilities.

How students perceive advising depends on their worldview and the characteristics of their background. Coll and Zalaquett (2007) described worldview as how people view their relationship to others in the world. These perceptions are based on the individual's social, psychological, and cultural experiences within their environments and affects the way they approach and perceive the advisor-advisee relationship. Considering the diversity of a multicultural community college student population, advisors need to have the cultural competence to connect with this student population.

Homer's (1997) study, utilizing the ACT Survey of Academic Advising, which measures student attitudes toward advising, indicated that students with lower GPA scores rated their perception of their advisors more favorably because they felt the advisors knew who they were and respected their feelings and opinions. In surveys conducted on advising style perceptions and preferences, Hale et al. (2009) found that 95% of undergraduate students surveyed prefer their advisors to use the developmental method of advising. This was also the same with Davis and Cooper (2001), who found that students prefer their advisors, both professional and faculty advisors, to implement the developmental style of advising. The developmental advising style was also seen as more desired than prescriptive advising and was rated more favorably by students surveyed in a study conducted by Chando (1997).

Orozco et al.'s (2001) qualitative study with minority community college students revealed that these students desired a developmental advising relationship with their advisors and perceived that their advisors provided encouragement and support throughout their academic endeavors. Even though many studies were conducted to evaluate students' perceptions and

preference for advising, the majority were conducted at the university-level setting and were quantitative in nature.

Theoretical Framework

According to Baxter Magolda (2001), three significant questions are of priority: 1) "How do I know?"; 2) "Who am I?"; and 3) "How do I want to construct relationships with others?" (p. 4-8). The three dimensions of self-authorship are: 1) epistemological, which assists the individual to answer the "how do I know," 2) intrapersonal, where the individual finds answer to the question of "who am I," and 3) interpersonal, in which the individual comes to a strong sense of self and is able to master the question of "how do I want to construct relationships with others?" These dimensions are intertwined according to the experiences of the individual and are illustrated in Figure 4.

Baxter Magolda (2001) also identified four phases in the journey toward self-authorship: 1) following formulas; 2) crossroads; 3) becoming the author of one's life; and 4) internal foundation (see Figure 5). These phases are fundamental and not linear. Baxter Magolda (2001) stated that the person starts moving away from following external formulas to develop their inner voices and make meaning of life based on their internal foundation when the individual becomes the author of self.

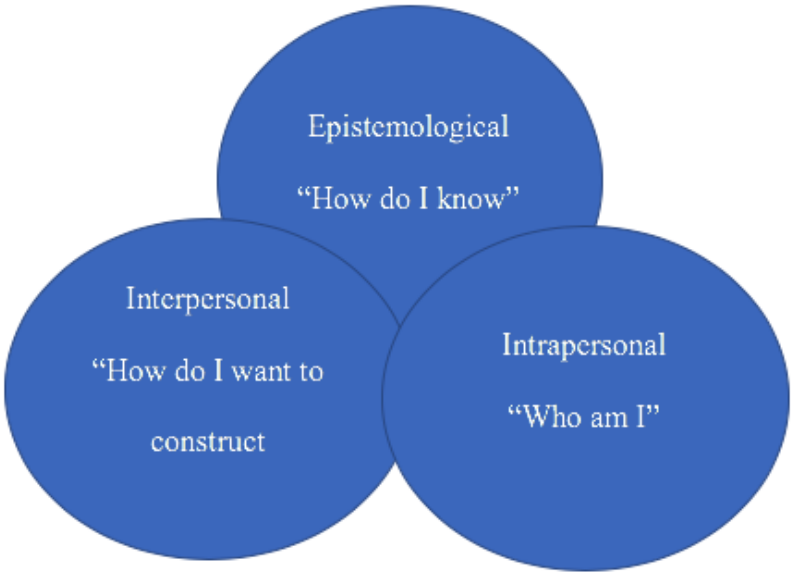

Figure 4. Three dimensions of self-authorship. Adapted from "*Making their own way: Narratives for transforming higher education to promote self-development*," by M. Baxter Magolda, 2001, p. 4-8, Sterling, VA: Stylus Publishing, LLC.

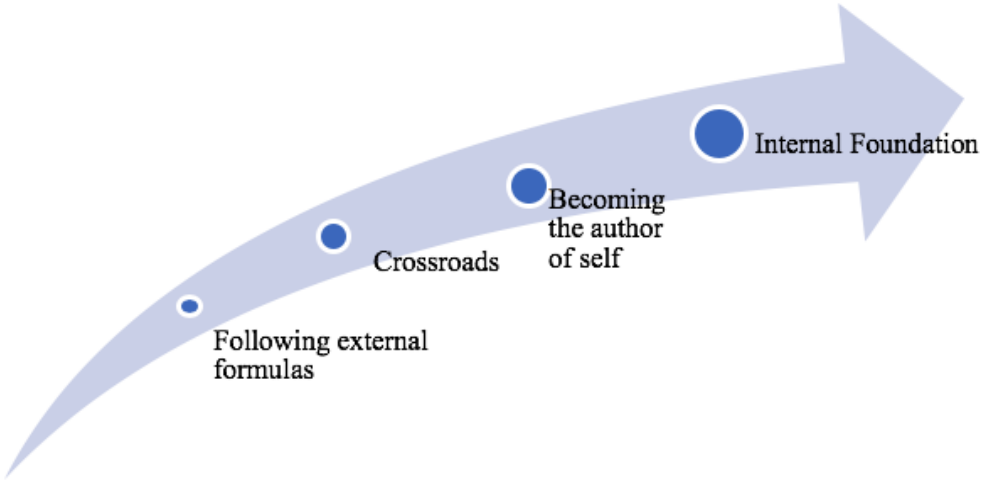

Figure 5. Self-authorship's journey. Adapted from "*Making their own way: Narratives for transforming higher education to promote self-development*," by M. Baxter Magolda, 2001, p. 4-8, Sterling, VA: Stylus Publishing, LLC.

Baxter Magolda (2001) argued that self-authorship is applied in college through the interactions among students and educators, in actions such as: giving constructive instruction that will allow self-reflection, clear interpretations of self-believes, and active involvement advising and career advising. The diverse population of students and their experiences is critically reflected in self-authorship. Students will be able to separate their viewpoints from others and act upon their own beliefs and ideas after they have gone through the order of consciousness. This study implies that authorities should facilitate the developmental transition of where a student is and where college personnel expects them to be.

Chapter Summary

This chapter covered a historical overview of community colleges, community college advising, including academic advising and retention, and the impact of advising on student success. Developmental and prescriptive advising styles were also addressed. The student perception on advising was discussed as well as the theoretical framework. In Chapter 3, a detailed overview of the research methodology will be presented, including its applicability to the perceptions of community college students concerning the advising process.

CHAPTER 3: METHODOLOGY

A Q methodology study was conducted to analyze community college students' perceptions on the advising process. Based on how the participants sorted the statements provided in the Q-set, they were grouped together by viewpoint and examined for similarities and differences. This study then investigated the consensus items across the groups of students based on their viewpoints of the advising process, the highest and lowest rated items, and the distinguishing statements among the viewpoints for each group, in order to determine the students' perception of the advising process and how it contributes to student success, persistence, and retention. This chapter includes an overview of the research design, the reasoning for why this method was selected for this study, and a detailed description of the steps to conducting a Q methodology study.

Research Design

This study is a non-experimental design using Q methodology to examine students' subjective viewpoints in relation to the advising process. The P-set consists of community college students at an urban institution. This method was chosen because Q methodology is well suited to capture the perception on a specific topic and is a good fit for this study.

The size of the participant sample used was based on the final number of statements selected from the concourse for the Q-sort. According to Watts and Stenner (2012), a satisfactory Q-set is usually somewhere between 40 and 80 statements and the suggested minimum ratio of Q-sample to P-sample should be 2:1. Based on the concourse with a Q-set of 42, the P-set included in the study was 24.

This study focused on the following research questions:

Research Question 1: What are the viewpoints of community college students toward the advising process?

Research Question 1a: What are consensus items across viewpoints for the groups of students based on their viewpoints of the advising process?

Research Question 1b: What are the highest rated items for each group of students based on their viewpoints of the advising process?

Research Question 1c: What are the lowest rated items for each group of students based on their viewpoints of the advising process?

Research Question 1d: What distinguishing statements among viewpoints for each group of students based on their viewpoints of the advising process?

These research questions were organized to develop an understanding of the perceptions of community college students on the advising process.

Background

In 1935, William Stephenson, a physicist and psychologist, first described Q methodology as a means of extracting subjective opinion (Brown, 1997). Watts and Stenner (2012) stated that Q methodology is a research technique that is combined with a set of theoretical and methodological concepts. The purpose of an engaging Q study is to observe people's perceptions of the participant's view from the vantage point of self-reference (McKeown & Thomas, 2013). Q methodology brings qualitative research into quantitative territory (Watts & Stenner, 2012).

Q Methodology

There are five distinct stages of activities in Q methodology. These stages are as follows:

1. Developing the concourse;

2. Establishing the Q-sample;
3. Identifying the participants, also known as the P-set;
4. Collecting the data for the Q-sort; and
5. Analyzing the date, which will include correlations, factor analysis, and factor scores.

The sequencing of a Q methodology study is shown in Figure 6.

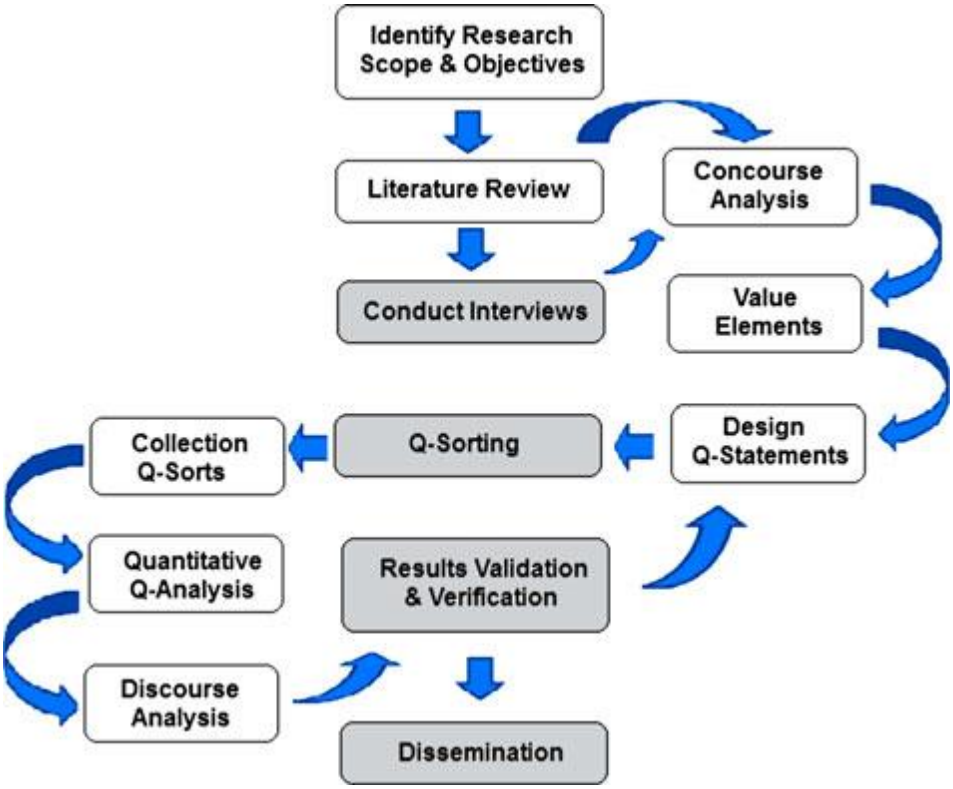

Figure 6. The sequencing of steps in a Q methodology study. Adapted from "Heterogeneity of experts' opinion regarding opportunities and challenges of tackling deforestation in the tropics: A Q methodology application," by M. Nijnik, A. Nijnik, E. Bergsma, & R. Matthew, 2013, *Mitigation and Adaptation Strategies for Global Change*, *19*(6), p. 7.

Developing the concourse. Developing the concourse is the first step in Q methodology. The concourse represents statements on a specific topic. The researcher can develop the concourse through interviews, observations, or literature reviews (van Exel & de Graaf, 2005). The Q statements for this study were focused on the different elements of student perceptions and developed based on a thorough literature review.

Q-sample. The next step in the Q methodology is to develop the Q-sample, which is the selected statements from the full concourse. The full concourse list is themed and narrowed, as the purpose of the Q-set is to demonstrate good coverage in relation to the research questions, but also maintain a manageable number for the study. The contents must be broadly represented of the opinion of concern or concourse at issue (Watts & Stenner, 2012). The participants in this study were asked to read the Q-sample statements and randomly assign a number by the researcher for data entry. A sample of a Q-set is shown in Figure 7.

Card No.	Perception
1	Advisor focuses on the student's success
2	Advisor helps me during academic difficulties
3	Advisor explains which classes to register for
4	Advisor explains why I should register for their suggested classes
5	After advising I am more likely to engage in institutional activities outside of class
6	Advisor informs me about upcoming deadlines
7	Advisor informs me of academic support options
8	Advisor helps me identify pathways to academic success
9	Advisor helps me identify the correct major
10	Advisor helps me understand transfer requirements
11	Advisor outlines the course requirements to complete my studies
12	Advisor helps me understand the labor market demand/need of my area of study (are there jobs)
13	Advisor helps me understand the salary impact of my area of study
14	Advisor considers my future career plans when helping me make decisions
15	Advisor provides career counseling
16	Advisor connects me with career resources (career center, job boards, etc.)
17	Advisor makes me aware of different career opportunities
18	Advisor shares the institution's strategy for degree programs they offer/cut
19	Advisor helps develop soft skills needed for the labor market
20	Advisor explains how area of study will benefit student in labor market
21	Advisor encourages me to seek out diverse cultural experiences
22	Advisor shows the same respect for all students
23	Advisor understand the different cultures
24	Advisor is willing to meet more than once per semester
25	Advisor makes sure I understand what we are talking about
26	Advisor spends the same amount of time with each student
27	Advisor listens closely to my concerns and questions
28	Advisor reaches out to me first
29	Advisor is accessible
30	Advisor have meaningful conversations with me
31	Advisor makes me feel comfortable when we meet
32	Advisor understands my concerns
33	Advisor helps me navigate institutional rules and policies
34	Advisor directs me to additional resources
35	Advisor provides mentoring outside of academics, such as personal needs
36	Advisor and I have a good relationship
37	Advisor is trustworthy
38	Advisor encourages me to take responsibility for myself
39	Advisor encourages me to make my own decisions
40	I know exactly what to do after meeting with the Advisor
41	Advisor helps me identify pathways to social success
42	I am motivated after meeting with the advisor

Figure 7. Q-set sample.

P-set. The participants (P-set) in a Q methodology study are not random but rather are carefully selected. The group of participants should have a theoretical interest in the study about the specific topic (Brown, 2004). It is more important to determine who the participants are in the group versus the number of participants in the group. According to Watts and Stenner (2012), the number of participants in a Q methodology study does not need to be large because the purpose is to measure the perceptions of a specific population on the topic of interest.

For this study, community college students at an urban institution in the south were solicited to participate. To recruit participants, assistance was solicited from the Director of Advising and Student Success Center at this institution. An e-mail with a brief description of the request was sent to community college students to participate. The e-mail disclosed the purpose and scope of the study and assured participants that personal information and responses would be kept confidential and not be disclosed in any identifying fashion at any point in the research. From this population, students enrolled in Fall 2018 meeting the criteria were able to participate in this study.

Q-sort. The Q-sort is the data collection stage of Q methodology. The participants sorted and ranked the statements based on instructions. Each card in the Q-set had one statement. The participants were given specific sorting instructions called "condition of instruction" and an answer sheet was provided to record the participant's ranking order. Participants were asked to sort their statements into a predefined set of categories ranging from "Most Agree" to "Most Disagree." Figure 8 is an example of the scoring grid where the participant recorded the card numbers following their Q-sort. Figure 9 is an example of a completed Q sort of a participant's responses.

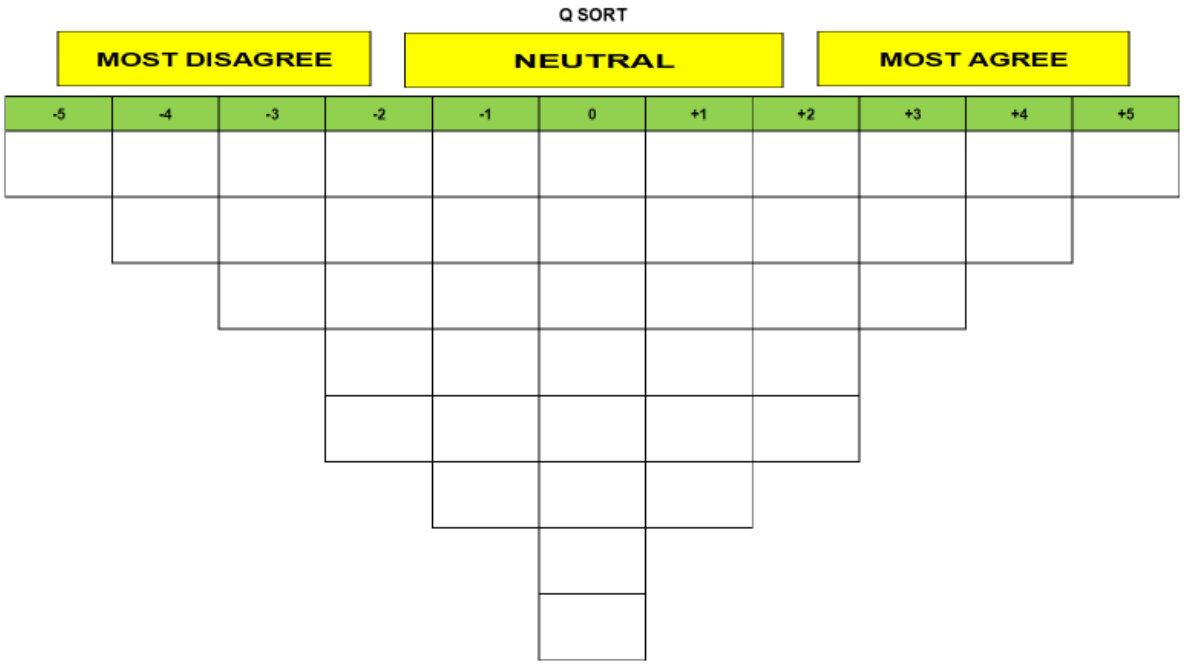

Figure 8. Sample of Q sort matrix

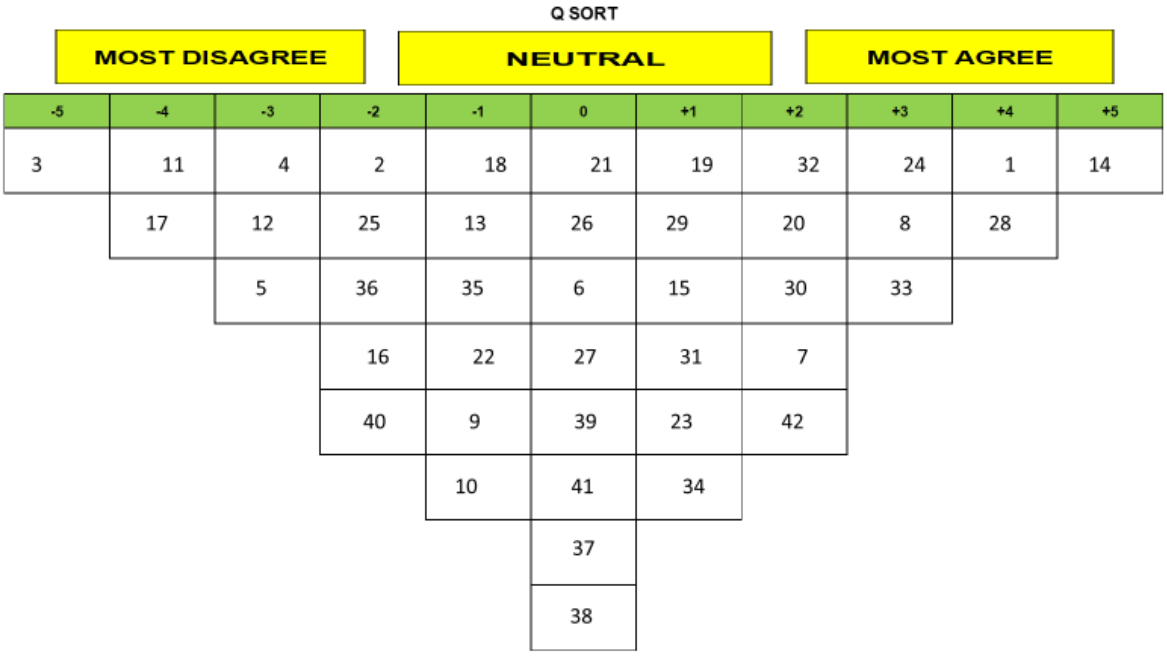

Figure 9. Sample of participant's completed Q sort.

A recommendation to ease the process of sorting by van Excel and de Graaf (2005) is to instruct the participants to create two sorts. The first sort is to divide the cards into three different piles of "Most Agree/Positive," "Most Disagree/Negative," and "Neutral." Once the cards are in three piles, the participants are instructed to conduct the second sorting into the matrix given to them. The reason for the two-part sorting is to allow the participants to collect their thoughts in a timely and constructive manner. There is a good chance that one pile may have more cards than another and participants will be asked to start drilling down each pile to distinguish the items so that their final ranking resembles the provided Q-sort matrix (Brown, 1993; Thomas & Watson, 2002). If the Q-sort is done in person, an interview with each participant may be conducted. This is essential to get a better understanding of the rankings and the reasoning for their placements of the individual statements (Watts & Stenner, 2012).

Correlation, factor analysis and factor scores. When analyzing the Q-sort, three sets of statistical procedures are applied in sequence: 1) correlation; 2) factor analysis; and 3) computation of factor scores. The first set of requirements is to generate a correlation matrix of the participants. The correlation analysis is to compare the views among the participants to find the similarities and differences in their viewpoints. Once the matrix of the Q-sort correlations has been provided, the factoring process begins. The data analysis uses correlation and by-person for the factor analysis. Instead of using a variable, trait, or a statement, the analysis is done by person. Each participant will then be grouped with others who have similar viewpoints based on their Q-sorts, instead of grouping them by gender or age (Brown, 1993). According to Hall (2017) the function of the factor analysis is a statistical data reduction and technique to categorize the correlated viewpoints under various factors to explain correlations among multiple outcomes as the result of one or more underlying factors. This function tries to discover the

unexplained factors that may influence the co-variation among multiple observations. When combined together, these factors will capture the variety of individual perspectives that will be structured in such a way that will create common but different discussions on the perspective of the advising process. This also helps reduce the complexity of the data from all the individual perspectives to allow a better comparison of the key similarities and differences between the groups. A factor analysis for quantitative measurement of the participant's viewpoints is required. Since the purpose of a Q-study is to uncover attitudes and viewpoints, the final stage is the interpretation of the discourses that was uncovered by the quantitative analysis that will be compared with the narrative data provided by the participants. Interpretations for Q methodology are based on factor scores that reflect the extent of agreement among perceptions related to the individual Q-sort statements. Several independent factors will be evidence of different points of view in the participant's sample when conducting a Q-sort. A participant's positive loading on a factor will indicate that the person's shared subjectivity with others on that factor are similar, while on a negative loading, there will be signs of rejection of the factor's perspective (McKeown & Thomas, 2013). Verification and communication of the results with the participants will then be addressed. Q methodology is considered a mixed method because the sorting produces two distinct sets of data, the sorts themselves are quantitative while the discussions conducted to understand the reasons for the placements are qualitative.

Q Methodology Terminology

Concourse: "A list of items serving as a candidate for inclusion in the Q-sort that can take the form of questions, statements, pictures, etc." (Brown, 2004, p. 18).

Condition of instruction: Clear instructions that will be provided by the researcher given to the participants on how to consider the statements, interpret the research questions, and complete the Q-sort procedure (McKeown & Thomas, 2013).

Factor: "The clusters of respondents whose Q-sorts were statistically similar" (Brown, 2004, p. 18).

Factor loading: "Each respondent's correlation with each of the identified clusters or factors" (Brown, 2004, p. 18).

Factor scores: "These scores show the level of consensus/conflict among statements within each opinion cluster. They serve as the basis of interpretation" (Brown, 2004, p. 18).

Q-set or Q-sample: "The sample of items that are drawn from the concourse and comprise the instrument that will be provided to the respondents" (Brown, 2004, p. 18).

*P-set or P-Sample: "*The structured sample of respondents who are the theoretically relevant to the problem under consideration" (van Excel & de Graaf, 2005, p. 6).

Q methodology: "Encompasses a distinctive set of psychometric and operational principles that, conjoined with statistical applications of correlational and factor analysis techniques, provide the researcher with a systemic and rigorously quantitative procedure for examining the subjective components of human behavior" (McKeown & Thomas, 2013, p. xvii).

Q-sort: "Each respondent's rank-ordered a set of perceptions" (Brown, 2004, p. 18).

Q Methodology and Community College Students

Q methodology was described as a tool to look at human subjectivity and the perspectives from the viewpoint of the person being observed. Subjectivity and Q methodology are connected. Most studies on this topic have been quantitative, and there is no current literature readily available to capture the combination of Q methodology and the perceptions of

community college students on the advising process. As such, this study creates a new understanding and the development of a new framework for reaching students who can benefit from advising services.

Instrumentation

The Q-Sort can be done either electronically remotely or manually in person. There are different software applications available, such as "Qsortware," to conduct electronic Q-sorts. These electronic versions are user-friendly with a drag and drop Q sorter where the researcher has control of how the statements and data will be presented and collected. For this study, the Q-sort was conducted through the traditional, hard-copy, in-person process. After participants were recruited for the study, an on-site campus visit was scheduled with the participants. At the meeting, participants were provided with the conditions of instruction, both verbal and written, regarding the Q-sorting process and I was available to any participants with questions during the sorting process. The final size of the Q-sample was 24 for the P-set; which was within the targeted range between 20-25 participants based on the Q-set of 42 statements. The participants were asked to record their sort data on a blank Q-sort template. Once participants were satisfied with their respective sorts, participants completed a post-survey responding to the questions in a narrative format.

Data Collection and Analysis

After North Carolina State University Institutional Review Board approval was received, community college students were engaged in the data collection process to determine their perceptions of the advising process. The process of conducting the Q-sort was in-person. Participants were given a blank version of the Q-sort matrix to be used for their sorting and

ranking of the Q-set items. Participants also received specific sorting instructions and a sheet where I recorded the results of the sorts (Brown, 1993).

With the in-person process, individuals had an opportunity to reflect on the Q-sorting to elaborate upon their thought process during the sort and were able to provide richer qualitative insights into the viewpoints (Watts & Stenner, 2012). During this time, participants were able to explain the reasoning for their ranking, discuss items they felt were missing or out of place, and provide a more immediate descriptive response.

Ethical Considerations

Q methodology research involves human subjects and whenever human subjects are involved, it is necessary to engage and obtain approval from an Institutional Review Board prior to proceeding with any research activities. I obtained approval from North Carolina State University Institutional Review Board and the subject school Review Board before proceeding with my research.

Chapter Summary

The purpose of Chapter 3 was to provide an introduction to the study of Q methodology. This chapter also provided an outline as to how the research was conducted within the context of community college students' perceptions regarding the advising process. This study did not require a large number of participants to assess the viewpoints of the subject because Q methodology experts have indicated that there are only a limited number of opinions, beliefs, and perspectives existing for any specific topic (Brown, 1993). This methodology also blends both qualitative and quantitative methods to create a deeper understanding of the viewpoints of the participants.

CHAPTER 4: FINDINGS

This chapter offers the data analysis results from the Q-sorts that were conducted to answer the research questions addressed. A total of 24 students from an urban community college in the south completed the Q-sort to explore the students' perceptions and opinions toward the advising process. The participants sorted a concourse that consisted of 42 statements based on a review of the literature, website research, and my own personal knowledge. The prior chapter exhibited the process and procedures that were followed to conduct this study.

The objective of this Q methodology study was to gain an understanding of the perceptions of the advising process among community college students at an urban institution in the south. This chapter presents the data that was collected to answer the following research questions:

Research Question 1: What are the viewpoints of community college students toward the advising process?

Research Question 1a: What are consensus items across viewpoints for the groups of students based on their viewpoints of the advising process?

Research Question 1b: What are the highest rated items for each group of students based on their viewpoints of the advising process?

Research Question 1c: What are the lowest rated items for each group of students based on their viewpoints of the advising process?

Research Question 1d: What distinguishing statements among viewpoints for each group of students based on their viewpoints of the advising process?

To answer these research questions, community college students were asked to complete a Q-sort and respond to a post-questionnaire that required narrative responses. The Q-sort asked

the participants to sort the concourse statements based on their perception of the advising process at the community college they attended. The narrative questions asked each individual participant to provide information about why they ranked a statement as "most agreed" or "most disagreed."

The remainder of this chapter presents an overview of the analysis, correlation matrix, factor analysis, eigenvalues, factor loadings, factor arrays, and distinguishing statements. This chapter does not include a discussion of the consensus statements because there were none based on the six factors identified. A description of the demographics will also be displayed, as well as data showing the highest and lowest ranked statements for each group.

Overview Analysis

In Q methodology, this method is used to group individuals by common perceptions to identify themes that emerge from these groupings. Because the Q-sort is based on a participant's perception or opinion, this process allows the participant to develop a thought on the topic in ranking order as the participant must rank the statements into a forced distribution. After the analysis that revealed the "high" and "low" for each grouping, themes were developed based on the statements that ranked as "high" and "low" for each group where the students sorted statements representing the broad range of viewpoints on the advising process.

The Q-sort was conducted manually. A laminated 11 x 17 Q-sort template was used to place the 42 statements into each box. Each statement card is identified with a reference number. The number designated on each statement card had no correlation to anything except to track the statements. After the participant completed their ranking, the participants transferred the statement identified in each box onto an 8 ½ x 11 letter blank Q-sort template transferring the listed number of the statement they had ranked onto the blank template. When the sheet was

completed, participants were asked to answer the following questions in a post-questionnaire. A copy of the questionnaire is included in the Appendix.

1) Why did you place Card #___ "most agree" under +5?
2) Why did you place Card #___ "most disagree" under -5?
3) Were there specific statements that you had difficulty placing?
4) What had the greatest impact on how you sorted your cards the way you did?

After the data was collected and manually entered into an Excel spreadsheet, the data was imported into CRAN-R project for analysis. The R statistical software was used to develop the factor analysis, correlation matrix, factor analysis, eigenvalues, factor loadings, factor arrays, and any consensus and distinguishing statements. From the output of the data, the information was used to identify groups of the students' perceptions of the advising process using qualitative responses to materialize into themes.

Factor Analysis & Eigenvalues

The data from the study were processed through the R statistical software. According to Watts and Stenner (2012), it is recommended that factor analysis begins with seven factors. Through various iterations, the number of factors determined from this study were six factor groups that would need to be extracted. The determination to use six factors was based on each of the factor groups that reflected in the eigenvalues that exceeded 1.0 which is considered to be significant; whereas eigenvalues that are less <1.0 are considered to be weak and does not require attention (McKeown and Thomas, 2013). Table 3 show the eigenvalues for each of the groups ranging from a high of 3.9 to a low of 1.6. The table also shows the six groups combined to explain 63.80% of the variance amongst the responses. The reliability between the factor

groups ranged from 0.89 to 0.94, which is considered a reliable score to be acceptable because the score exceeded 0.70 (Watts & Stenner, 2012).

Table 3

Factor Characteristics Eigenvalues

Factor	Average Reliability Coefficient	Number of Loading Q Sort	Eigenvalues	Variance Explained	Reliability	Standard Error of Factor Scores
Factor 1	0.8	4	3.9	16.4	0.94	0.24
Factor 2	0.8	3	3.0	12.4	0.92	0.28
Factor 3	0.8	3	2.5	10.2	0.92	0.28
Factor 4	0.8	3	2.4	9.8	0.92	0.28
Factor 5	0.8	3	2.0	8.3	0.92	0.28
Factor 6	0.8	1	1.6	6.7	0.80	0.45

To confirm the decision to use a six-factor analysis, a scree plot was created to help visualize the dimension of the data. The scree plot shows the cumulative variance explained by each component. In Figure 10, the y-axis shows the eigenvalues and the x-axis reflects the components. The curve on the plot represents the point that is considered the number of factors that explains the data. Anything below 1.0 will not be explained satisfactorily (Watts & Stenner, 2012).

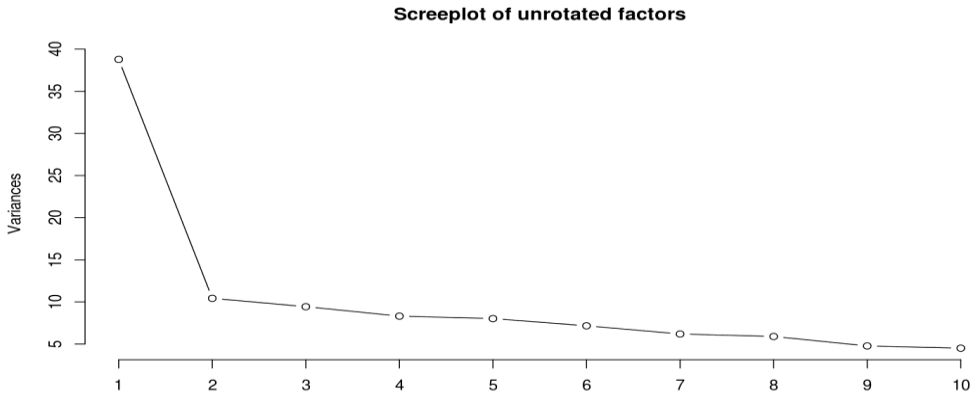

Figure 10. Scree plot

Correlation Matrix

A correlation matrix was completed to show the strength of similarities between the groups. To measure the correlation coefficients, a scale of -1.0 to 1.0 was used to indicate a group's response to another. A reading of 1.0 will reflect that the group's response was the same to another group and a -1.0 would indicate that the groups response to the total opposite to another group. Table 4 shows how each of the groups in this study is related to the other. Based on the data, it shows that the group with the strongest correlation between the two groups are Group One and Group Four with a correlation of 0.41. The weakest correlation is between Group Two and Group Six with a correlation of -0.04. This indicates that Group One and Group Four had responded with similarity on the Q-sort and Group Two and Group Six answered with the most dissimilarity.

Table 4

Correlation matrix

	F1	F2	F3	F4	F5	F6
F1	1.00					
F2	0.40	1.00				
F3	0.28	0.20	1.00			
F4	0.41	0.39	0.31	1.00		
F5	0.18	0.18	0.07	0.024	1.00	
F6	0.16	-0.04	0.21	0.17	0.08	1.00

Factor Loadings

Factor loadings are in effect correlation coefficients. They indicate the extent to which each Q-sort is similar or dissimilar to the composite factor array for that type (McKeown & Thomas, 2013). While I reviewed the similarities and differences in this study, I also looked at the participants closely to identify which participants made up the six groups. Table 5 displays the factor loading for all sample and Table 6 displays the flagged factor loadings ranging from 1.0 to 1.0 and the variables will generally load on all factors but will usually load only high on one factor (Newman & Ramlo, 2010). The factor that is flagged on the factor loading table is shown as "TRUE" to help identify the participants that need to be placed into their best fit factor group. This study did not show any "cross-loading" where a participant is flagged more than one time in the factor groups. The table shows that Factor One had four participants; Factor Two, Factor Three, Factor Four and Factor Five each had three participants; and Factor Six had only one participant.

Table 5

Factor loading for all sample

	Factor One	Factor Two	Factor Three	Factor Four	Factor Five	Factor Six
P01	0.85	0.29	-0.01	-0.07	0.66	0.31
P02	0.74	0.53	0.60	0.11	0.13	0.12
P03	0.58	0.34	-0.17	0.17	0.01	0.19
P04	0.55	0.47	0.53	0.32	0.27	0.17
P05	0.54	0.04	0.13	0.10	0.20	0.19
P06	0.50	0.07	0.26	0.05	0.56	-0.03
P07	0.49	0.18	0.22	0.53	0.25	-0.11
P08	0.49	0.36	-0.02	0.33	0.00	0.44
P09	0.48	0.62	0.14	0.10	0.08	0.00
P10	0.46	-0.04	0.68	0.26	-0.12	-0.07
P11	0.46	0.01	0.47	0.10	0.13	-0.18
P12	0.37	0.75	-0.10	0.24	-0.03	-0.14
P13	0.25	0.43	0.15	0.00	-0.07	-0.34
P14	0.20	0.03	0.75	-0.14	0.08	0.26
P15	0.19	-0.04	0.09	0.56	0.00	0.19
P16	0.17	0.36	0.19	-0.02	0.01	0.25
P17	0.12	0.23	0.07	0.82	0.02	-0.01
P18	0.11	0.60	-0.01	0.11	0.27	0.03
P19	0.10	-0.12	0.10	0.13	0.05	0.76
P20	0.05	0.47	0.28	-0.13	0.43	0.11
P21	-0.04	-0.14	-0.09	0.26	0.81	-0.15
P22	-0.07	0.37	0.26	-0.31	-0.15	0.35
P23	-0.08	-0.03	0.17	0.18	0.02	-9.09
P24	-0.40	0.20	0.39	0.65	0.23	0.30

Table 6

Flagged factor loading

	Factor One	Factor Two	Factor Three	Factor Four	Factor Five	Factor Six
P01	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE
P02	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE
P03	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
P04	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
P05	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
P06	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE
P07	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
P08	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
P09	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE
P10	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE
P11	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
P12	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE
P13	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
P14	FALSE	FALSE	TRUE	FALSE	FALSE	FALSE
P15	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
P16	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
P17	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE
P18	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE
P19	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
P20	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
P21	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE
P22	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
P23	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE
P24	FALSE	FALSE	FALSE	TRUE	FALSE	FALSE

In Table 7, the factor loading for each participant is shown. Factor One had four participants that significantly loaded with factors ranging from 0.85 to 0.55. Factor Two had three participants that loaded significantly with factors ranging from 0.75 to 0.59. Factor Three had three participants with factors ranging from 0.75 to 0.60. Factor Four, ranged from 0.82 to 0.56. Factor Five, ranged from 0.81 to 0.56; and the last factor, Factor Six, had only one participant that loaded at 0.76.

Table 7

Factor loading

Participant ID	Factor One	Factor Two	Factor Three	Factor Four	Factor Five	Factor Six
P23	0.85					
P03	0.74					
P05	0.58					
P16	0.55					
P12		0.75				
P09		0.62				
P18		0.59				
P14			0.75			
P10			0.68			
P02			0.60			
P17				0.82		
P24				0.65		
P15				0.56		
P21					0.81	
P01					0.66	
P06					0.56	
P19						0.76

Factor Arrays

Factor arrays are used to analyze and interpret data from the Q-sort. The arrays are the combination of all the sorts from an identified factor and it presents the information in a manner that can easily be compared or contrasted to other statements and factors from the Q-sort. The Q-sort captured the viewpoints community colleges students perceived as an outstanding advising process that required a forced distribution from most disagree -5 to most agree +5 and all other responses falling in between. Table 8 shows the statements relating to the Q-sort conducted. There was one statement that possessed a positive score across all the factor groups, which is seen in Statement# 1 (Advisors focus on student's success). There were no negative scores that ran across all factor groups. It is through this process that the consensus and distinguishing statements are extracted.

Table 8

Factor arrays

		F1	F2	F3	F4	F5	F6
1	Advisor focuses on the student's success	1	1	2	2	1	2
2	Advisor helps me during academic difficulties	0	0	0	-1	0	1
3	Advisor explains which classes to register	2	1	0	1	0	1
4	Advisor explains why I should register for their suggested classes	1	2	-1	2	-1	-2
5	After advising I am more likely to engage in institutional activities outside of class	-1	0	-2	-1	-1	0
6	Advisor informs me about upcoming deadlines	0	1	0	0	2	-1
7	Advisor informs me of academic support options	-1	1	-1	0	0	0

Table 8 (continued).

8	Advisor helps me identify pathways to academic success	0	0	1	0	0	-2
9	Advisor helps me identify the correct major	1	0	0	1	1	0
10	Advisor helps me understand transfer requirements	1	1	2	2	-1	1
11	Advisor outlines the course requirements to complete my studies	1	2	0	1	-1	0
12	Advisor helps me understand the labor market demand/need of my area of study (are there jobs)	-2	-2	0	0	-1	0
13	Advisor helps me understand the salary impact of my area of study	-1	-1	-1	0	0	1
14	Advisor considers my future career plans when helping me make decisions	1	0	1	1	-1	0
15	Advisor provides career counseling	-2	0	1	0	-1	0
16	Advisor connects me with career resources (career center, job boards, etc.)	0	0	1	1	-1	0
17	Advisor makes me aware of different career opportunities	-1	0	1	0	-1	0
18	Advisor shares the institution's strategy for degree programs they offer/cut	0	0	-1	1	0	2
19	Advisor helps develop soft skills needed for the labor market	-1	-2	0	-1	-1	-1
20	Advisor explains how area of study will benefit student in labor market	0	0	0	-2	0	-1
21	Advisor encourages me to seek out diverse cultural experiences	-2	0	-2	-1	1	0
22	Advisor shows the same respect for all students	0	0	1	2	3	0

Table 8 (continued).

23	Advisor understand the different cultures	-1	-1	-1	0	1	1
24	Advisor is willing to meet more than once per semester	1	-1	-1	-2	0	-1
25	Advisor makes sure I understand what we are talking about	1	2	0	1	2	-1
26	Advisor spends the same amount of time with each student	0	-1	0	-1	-1	0
27	Advisor listens closely to my concerns and questions	0	0	1	0	1	0
28	Advisor reaches out to me first	0	-3	0	-1	-1	1
29	Advisor is accessible	1	0	0	-1	-1	0
30	Advisor have meaningful conversations with me	0	1	0	-1	-1	0
31	Advisor makes me feel comfortable when we meet	0	0	0	-1	-1	-1
32	Advisor understands my concerns	1	-1	1	0	0	-1
33	Advisor helps me navigate institutional rules and policies	-2	-1	-1	0	0	0
34	Advisor directs me to additional resources	-1	0	-1	0	1	-1
35	Advisor provides mentoring outside of academics, such as personal needs	0	0	1	-1	1	2
36	Advisor and I have a good relationship	-1	-1	-1	0	1	-2
37	Advisor is trustworthy	1	0	2	0	0	0
38	Advisor encourages me to take responsibility for myself	-1	1	-1	-1	0	0
39	Advisor encourages me to make my own decisions	0	1	1	0	0	0

Table 8 (continued).

40	I know exactly what to do after meeting with the advisor	2	-1	0	0	1	1
41	Advisor helps me identify pathways to social success	-1	0	0	-1	-1	0
42	I am motivated after meeting with the advisor	0	0	0	-1	0	1

Consensus Statements

The analysis conducted for this Q sort did not identify any consensus statements. However, if only three factor groups were used than consensus statements may have appeared. The statements that loaded with similarity across all the factors are called consensus statements and the statements that were dissimilar or considerably different are called distinguishing statements. Because the R statistical software did not identify the variance between the factor groups that caused it to load in similar positions, this study did not have any consensus statements.

Distinguishing Statements

Distinguishing statements are the statements that were either ranked higher or lower by the given factor in comparison to the other factor groups. Unlike the consensus statements, distinguishing statements provide an insight into how each of the factor groups are different from one another. When there is a large pool of participants, it allows more opportunities for participants to disagree on the placement of the statements, in turn creating the potential for more statements to be distinguished.

Table 9 shows 16 statements that were identified by the R software analysis listing the variance between the factor groups to be considered distinguishing statements. There are nine

distinguishing statements that had a single factor; six had multiple factors; and one had a single factor.

Table 9

Factor arrays with distinguishing statements

		G1	G2	G3	G4	G5	G6
6	Advisor informs me about upcoming deadlines (G6)	1	2	0	0	4	-3
7	Advisor informs me of academic support options (G2)	-1	3	2	0	-1	0
8	Advisor helps me identify pathways to academic success (G3 & G6)	-1	-1	2	0	-1	-4
10	Advisor helps me understand transfer requirements (G5)	4	2	4	4	-3	2
11	Advisor outlines the course requirements to complete my studies (G2 & G5)	2	5	1	2	-3	1
15	Advisor provides career counseling (G1 & G5)	-4	1	1	1	-1	1
18	Advisor shares the institution's strategy for degree programs they offer/cut (G3)	0	1	-3	2	0	4
21	Advisor encourages me to seek out diverse cultural experiences (G5)	-4	0	-4	-1	2	-1
22	Advisor shows the same respect for all students (G4 & G5)	1	-1	1	3	5	0
24	Advisor is willing to meet more than once per semester (G1 & G4)	2	-2	-2	-5	0	-2
25	Advisor makes sure I understand what we are talking about (G6)	2	4	1	3	4	-3

Table 9 (continued).

28	Advisor reaches out to me first (G2, G5 & G6)	0	-5	-1	-1	-5	3
35	Advisor provides mentoring outside of academics, such as personal needs (G4)	0	0	2	-4	2	4
36	Advisor and I have a good relationship (G5)	-1	-2	-2	-1	2	-4
37	Advisor is trustworthy	1	1	5	0	1	0
40	I know exactly what to do after meeting with the Advisor (G1)	5	-2	0	0	3	2

To discuss in further detail how each statement between the factors varies, Table 10 below will illustrate the distinguishing statements by each factor group.

Table 10

Distinguishing statements by group

	No.	Statement	G1	G2	G3	G4	G5	G6
Group 1	15	Advisor provides career counseling (G1 & G5)	-4	1	1	1	-1	1
	24	Advisor is willing to meet more than once per semester (G1 & G4)	2	-2	-2	-5	0	-2
	40	I know exactly what to do after meeting with the Advisor (G1)	5	-2	0	0	3	2
Group 2	7	Advisor informs me of academic support options (G2)	-1	3	-2	1	1	0
	11	Advisor outlines the course requirements to complete my students (G2 & G5)	2	5	1	2	-3	1
	28	Advisor reaches out to me first (G2, G5 & G6)	0	-5	-1	-1	-5	3

Table 10 (continued).

	8	Advisor helps me identify pathways to academic success (G3 & G6)	-1	-1	2	0	-1	-4
Group 3	18	Advisor shares the institution's strategy for degree programs they offer/cut (G3)	0	1	-3	2	0	4
	37	Advisor is trustworthy (G3 only)	1	1	5	0	1	0
Group 4	22	Advisor shows the same respect for all students (G4 & G5)	1	-1	1	3	5	0
	24	Advisor is willing to meet more than once per semester (G1 & G4)	2	-2	-2	-5	0	-2
	35	Advisor provides mentoring outside of academics, such as personal needs (G4)	0	0	2	-4	2	4
Group 5	10	Advisor helps me understand transfer requirements (G5)	4	2	4	4	-3	2
	11	Advisor outlines the course requirements to complete my studies (G2 & G5)	2	5	1	2	-3	1
	15	Advisors provides career counseling (G1 & G5)	-4	1	1	1	-1	1
	21	Advisor encourages me to seek out diverse cultural experiences (G5)	-4	0	-4	-1	2	-1
	22	Advisor shows the same respect for all students (G4 & G5)	1	-1	1	3	5	0
	35	Advisor provides mentoring outside of academics, such as personal needs (G4)	0	0	2	-4	2	4
	36	Advisor and I have a good relationship (G5)	-1	-2	-2	-1	2	4
Group 6	6	Advisor informs met about upcoming deadlines (G6)	1	2	0	0	4	-3
	8	Advisor helps me identify pathways to academic success (G3 & G6)	-1	-1	2	0	-1	-4

Table 10 (continued).

25	Advisor makes sure I understand what we are talking about (G6)	2	4	1	3	4	-3
28	Advisor reaches out to me first (G2, G5 & G6)	0	-5	-1	-1	-5	3

The table above shows that Groups One, Two, Three, and Four each have three distinguishing statements; Group Five has seven distinguishing statements and Group Six has four distinguishing statements. Group Five had the most distinguishing statements given that this group indicated the lowest overall correlation between the groups. Groups One, Two, Three, and Four had stronger correlations with the other factors resulting in the groups with the fewest distinguishing statements. Group Six is a stand-alone with only one participant. There is one statement, statement #37 (Advisor is trustworthy) that appeared in Group Three with ("Only") which indicates that this group ranked the statement with a (+5) compared to all the other groups who ranked it between 0–1.

Factor Group One: Advising Expectation—Completion Focus

There is a total of four participants in Factor Group One. This accounts for 17% of the final P-set and 24% of the variance. Table 11 shows that this Group rated statement #40 (I know exactly what to do after meeting with the advisor) the highest followed by statement #3 (Advisor explains which classes to register) and statement #10 (Advisor helps me understand transfer requirement). The lows for this group are statement #21 (Advisor encourages me to seek out diverse cultural experiences), statement #15 (Advisor provides career counseling), and statement #12 (Advisor helps me understand the labor market demand/need of my area of study [are there jobs]). Group One had three distinguishing statements: statement #15 (Advisor provides career counseling), statement #24 (Advisor is willing to meet more than once per semester), and

statement #40 (I know exactly what to do after meeting with the advisor). Two of the statements were ranked positive, higher than the other five factor groups, and statement #15 was ranked on the negative side along with Group Five but more disagree (-4) compared to Group Five with (-1). Based on the distinguishing statements and the narrative responses, the group was labeled *Advising Expectation—Completion Focus* because they tend to seek the advisor to tell them what to do so that they are on track for completion. This group is suspected to rely heavily on the advisor to be most beneficial to them. The individuals stated that the advisor should clarify the student's path; they go to the advisor to be advised on what classes they should be taking/registering; and the advisor helps them pick the best choices for their career, so they know exactly what to do after meeting with an advisor.

Table 11

Group One: High and low items

Ranking	Card No.	Corresponding Statement
Highest		
5	40	I know exactly what to do after meeting with the advisor
4	3	Advisor explains which classes to register
4	10	Advisor helps me understand transfer requirements
Lowest		
-4	21	Advisor encourages me to seek out diverse cultural experiences
-4	15	Advisor provides career counseling (*)
-5	12	Advisor helps me understand the labor market demand/need of my area of study (are there jobs)

(*) Indicates the statement is also a distinguishing statement for the group.

Figure 11 illustrates a model of a sort for Factor One. It shows the highest and lowest placement of the cards for that group. These statements give us an insight on how the

participants view the advising process. It is essential how the statements are placed based on importance to the factor grouping process.

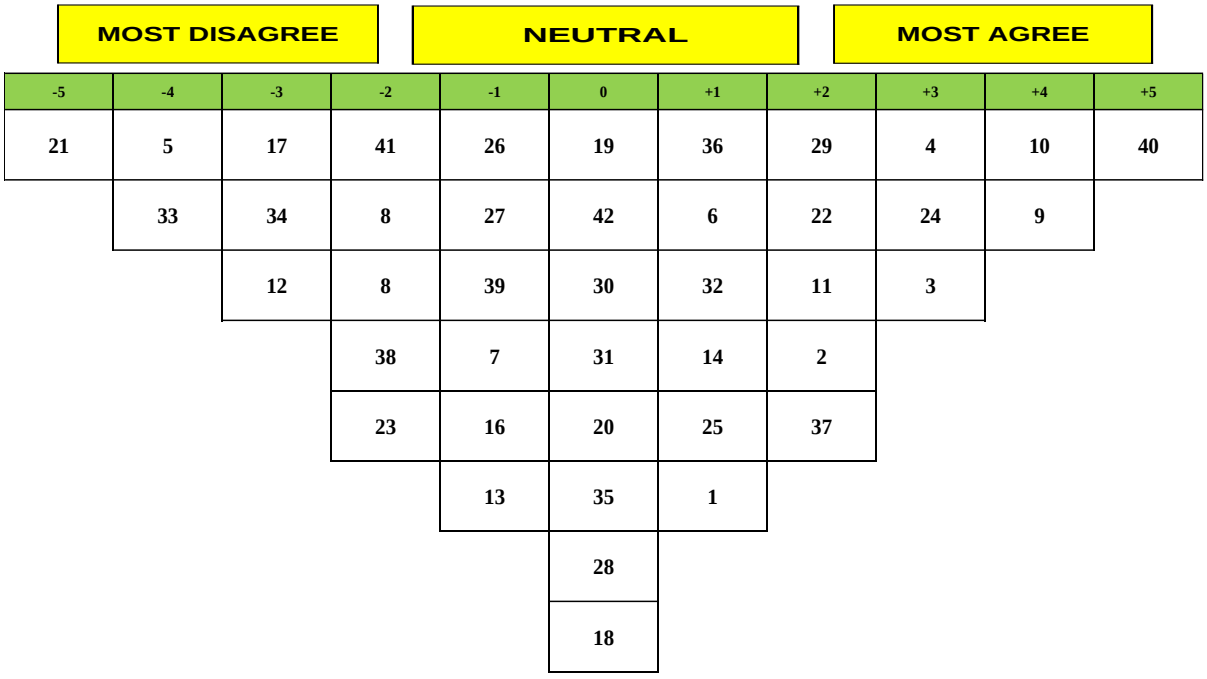

Figure 11. Model sort for Factor One.

Factor Group Two: Advising Expectation—Information Focus

Group Two consists of three participants, accounting for 13% of the final P-set and 18% of the variance. This group rated statements #11 (Advisor outlines the course requirements to complete my studies) the highest, followed by statement #4 (Advisor explains why I should register for their suggested classes) and then statement #25 (Advisor makes sure I understand what we are talking about). The lowest ranking from this group were statement #12 (Advisor helps me understand the labor market demand/need of my area of study [are there jobs]), statement #19 (Advisor helps develop soft skills needed for the labor market), and statement #28 (Advisor reaches out to me first) as shown in Table 12. There are three distinguishing statements for Group Two: statement #7 (Advisor informs me of academic support options), statement #11 (Advisor outlines the course requirements to complete my studies), and statement #28 (Advisor

reaches out to me first). This group ranked two of the statements higher as compared to the other five groups. Group One and Group Five both ranked statement #28 (Advisor reaches out to me first) the lowest with most disagreed (-5).

Table 12

Group Two: High and low items

Ranking	Card No.	Corresponding Statement
Highest		
5	11	Advisor outlines the course requirements to complete my studies
4	4	Advisor explains why I should register for their suggested classes
4	25	Advisor makes sure I understand what we are talking about
Lowest		
-4	12	Advisor helps me understand the labor market demand/need of my area of study (are there jobs)
-4	19	Advisor helps develop soft skills needed for the labor market
-5	28	Advisor reaches out to me first (*)

(*) Indicates the statement is also a distinguishing statement for the group.

Figure 12 displays the model for how Group Two participants completed their Q-sort. This shows which statements the participants of Group Two ranked as most agreed, and most disagreed, according to their viewpoints. Based on the consistency in the low-ranking statements, this group does not find the components of the labor market to be of importance. This model is endorsed by the information obtained from open-ended questions from the post Q-sort questionnaire that this group be labeled *Advising Expectation—Information Focus* because it is important to this group that advisors inform them of options, outline course requirements, explain the "why," and make sure they understand what they are talking about. This group is

interested in getting as much information as they can get and feels that advisors need to explain things thoroughly clearly so that they can make the right choices.

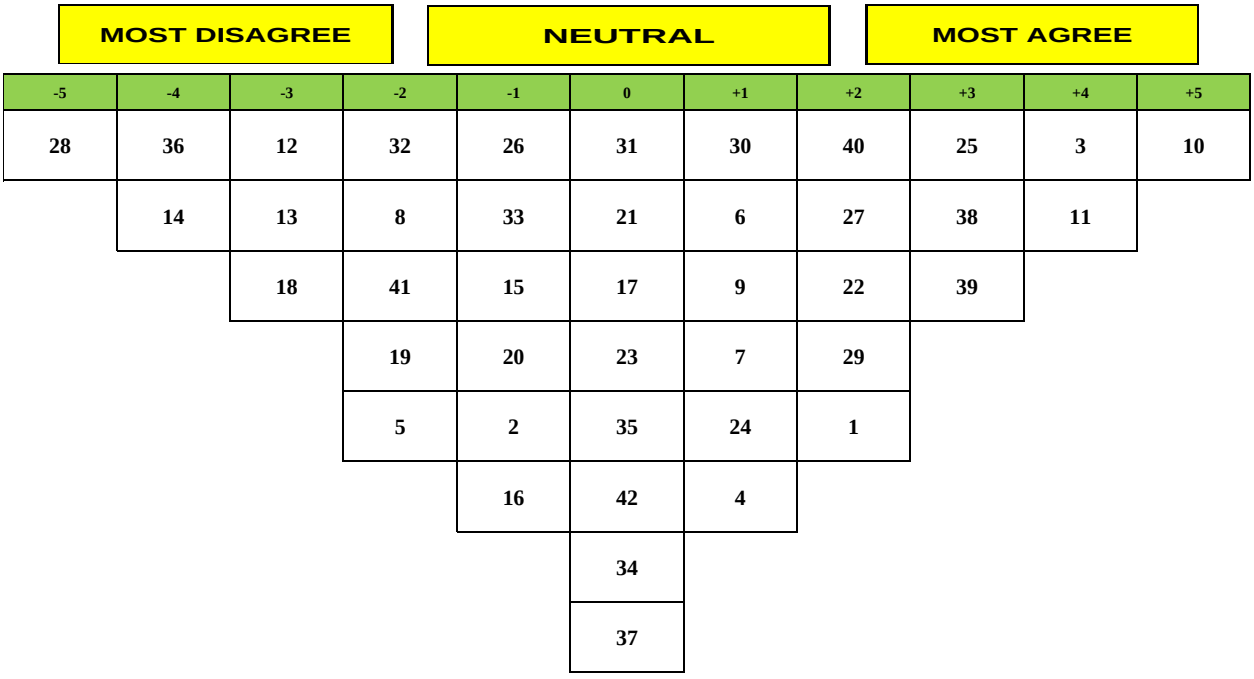

Figure 12. Model sort for Factor Two.

Factor Group Three: Advising Expectation—Trust Focus

A total of three participants loaded significantly for Factor Three. These three participants accounted for 13% of the total population and 18% of the variance. The group's high and low statements are displayed in Table 13. They rated highs in statement #37 (Advisor is trustworthy), statement #10 (Advisor helps me understand transfer requirements), and statement #1 (Advisor focuses on the student's success). Their low rankings were in statement #34 (Advisor directs me to additional resources), statement #21 (Advisor encourages me to seek out diverse cultural experiences), and statement #5 (After advising, I am more likely to engage in institutional activities outside of class). This group senses that the advisor is proactive and trustworthy. Group Three had 3 distinguishing statements. This group was the only group who ranked statement #8 (Advisor helps me identify pathways to academic success) positive as

compared to all the other groups who rated it negatively or neutral. Group Three also rated statement #18 (Advisor shares the institution's strategy for degree programs they offer/cut) negatively; whereas, all other groups had it as neutral or positive. For statement #17 (Advisor is trustworthy), this was the only group who ranked it the highest with a (+5) and all the other groups ranked it at a much lower ranking between 0 to 1.

Table 13

Factor Three: High and low items

Ranking	Card No.	Corresponding Statement
Highest		
5	37	Advisor is trustworthy (*)
4	10	Advisor helps me understand transfer requirements
4	1	Advisor focuses on the student's success
Lowest		
-4	34	Advisor directs me to additional resources
-4	21	Advisor encourages me to seek out diverse cultural experiences
-5	5	After advising, I am more likely to engage in institutional activities outside of class

(*) Indicates the statement is also a distinguishing statement for the group.

The model for how the participants in Group Three completed their Q-sort is shown in Figure 13. The model identifies the statement that the group listed as most agreed to their viewpoint to the most disagreed. This group is labeled *Advisor Expectation—Trust Focus* because the participant responses to the open-ended questions revealed that having an advisor that is trustworthy is critical otherwise there is no benefit for them to be advised. The trust between the advisor and student is important.

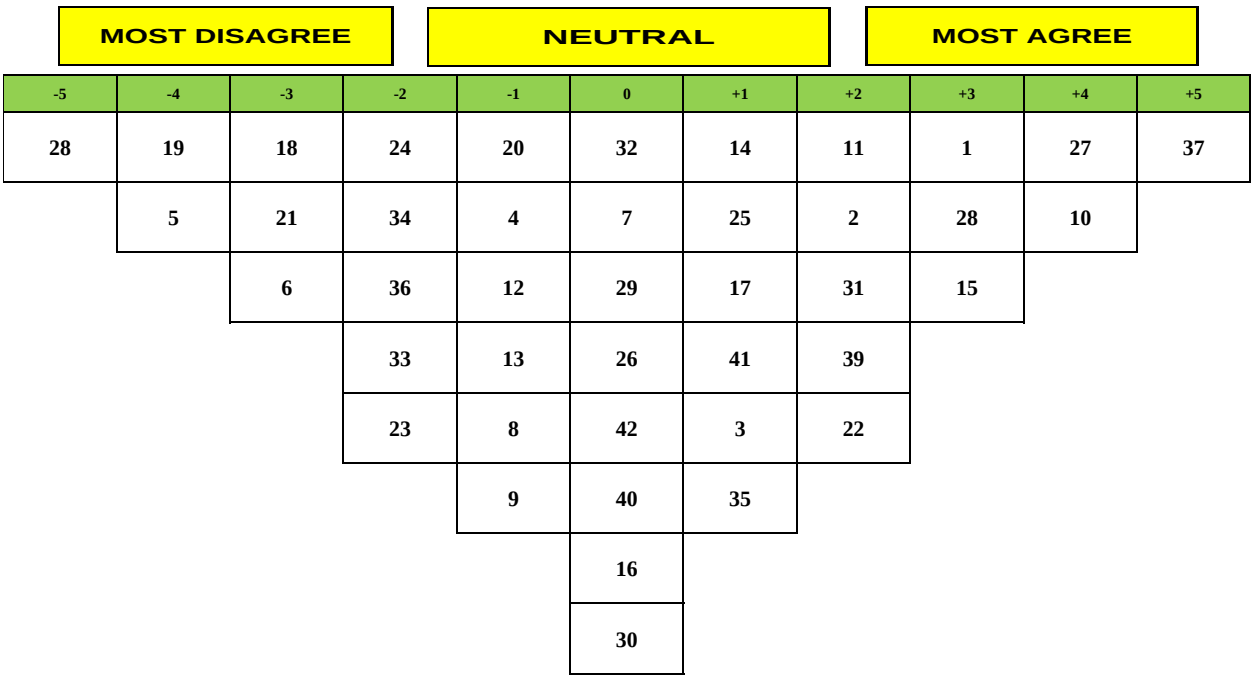

Figure 13. Model sort for Factor Three.

Factor Group Four: Advising Expectation—Transfer Focus

Group Four also had three factors. Like Group Two and Three, there are three participants in this group which represents 13% of the total population and 18% of the variance. Table 14 shows that this group rated statement #4 (Advisor explains why I should register for their suggested classes) as the highest followed by statement #10 (Advisor helps me understand transfer requirements) and statement #1 (Advisor focuses on the student's success). The lows for this group were identified with statement #35 (Advisor provides mentoring outside of academics, such as personal needs), statement #20 (Advisor explains how area of study will benefit student in labor market), and statement #24 (Advisor is willing to meet more than once per semester). This group does not seem to have any interest for an advisor to go beyond academic advising. There are three distinguishing statements for Group Four. The three statements are statement #22 (Advisors shows the same respect for all students); statement #24 (Advisor is willing to meet more than once per semester); and statement #35 (Advisor provides mentoring outside of

academics, such as personal needs). For statement #24, this group ranked the opposite to statement #22. Here they ranked statement #24 at the extreme low of (-5) compared to all the other groups. Similar to the earlier statement, this group also ranked the last statement that's distinguished for this group very low (-4) as compared to the other groups. According to this group, it is more important that the advisor shows respect to the students than having the advisor extend their time to provide resources outside of the academic realm.

Table 14

Group Four: High and low items

Ranking	Card No.	Corresponding Statement
Highest		
5	4	Advisor explains why I should register for their suggested classes
4	10	Advisor helps me understand transfer requirements
4	1	Advisor focuses on the student's success
Lowest		
-4	35	Advisor provides mentoring outside of academics, such as personal needs
-4	20	Advisor explains how area of study will benefit student in labor market
-5	24	Advisor is willing to meet more than once per semester (*)

(*) Indicates the statement is also a distinguishing statement for the group.

The model for how the participants in Group Four completed their Q-sort is shown in Figure 14. The model identifies the statement that the group listed as most agreed to their viewpoint to the most disagreed to their viewpoint. The participant responses to the open-ended questions reveal that this group is more concerned with the advisor focusing on them to discuss their future plans and classes to take to be on the right track for transfer, rather than to personally know who the advisor is, or to be meeting with them multiple times. The importance to advising

for this group is having advisors show respect and helping the student become successful with their future career plans, which labeled this group *Advising Expectation–Transfer Focus*.

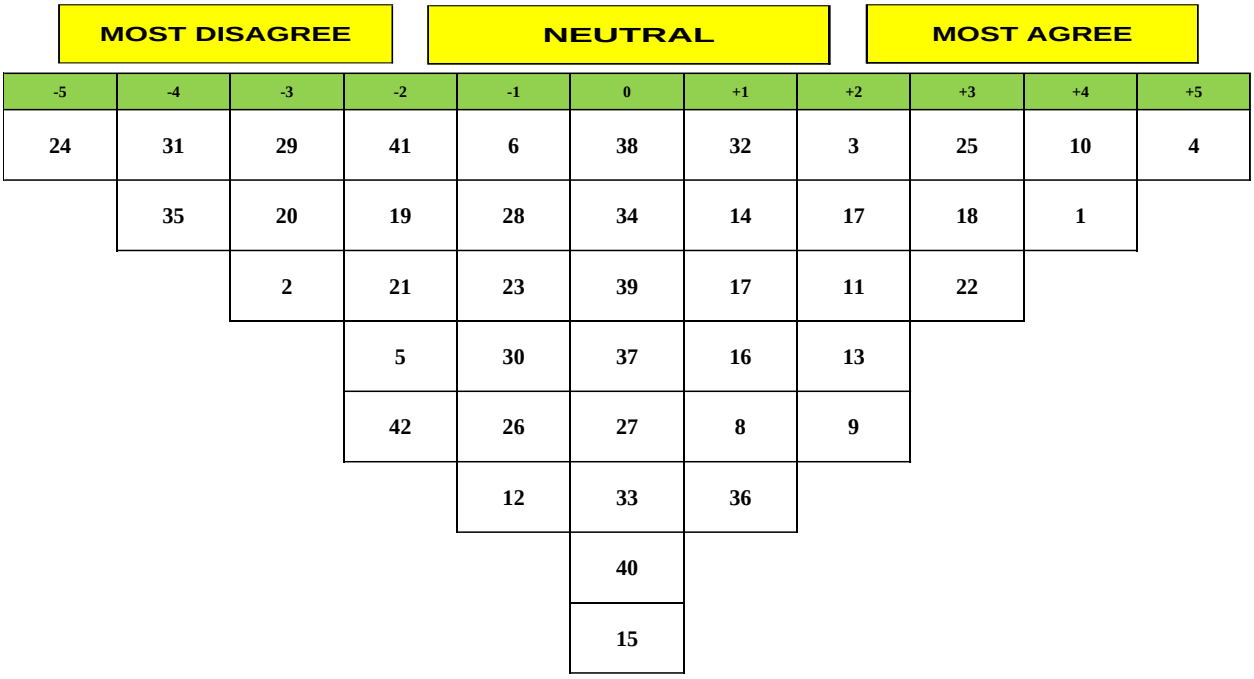

Figure 14. Model sort for Factor Four.

Factor Group Five: Advising Expectation—Equality Focus

Factor Group Five had three participants, representing 13% of the total population and 18% of the variance. However, unlike Group Two and Group Three, who also had three participants and three distinguishing statements, this group had by far the largest number of distinguishing statements. Group Five had seven distinguishing statements identified. Table 15 shows this group ranking their top three highs as statement #22 (Advisor shows the same respect for all students), statement #25 (Advisor make sure I understand what we are talking about), and statement #6 (Advisor informs me about upcoming deadlines). The lows for this group are statement #26 (Advisor spends the same amount of time with each student), statement #31 (Advisor makes me feel comfortable when we meet), and statement #28 (Advisor reaches out to me first). It is important for this group to have communication with the advisor, keeping them

informed with up-to-date information. Of the seven distinguishing statements identified for this group, it is statement #11 (Advisor outlines the course requirements to complete my studies), statement #22 (Advisor shows the same respect for all students), and statement #35 (Advisor provides mentoring outside of academics, such as personal needs) that had the most significant variance. This group ranked statement #11 at the low end of (-3) compared to Group Five who ranked the same statement at the far opposite end of (+5). In statement #22, Group Five ranked this statement at the highest end of (+5) compared to Group Two at (-1). For statement #35, Group Five ranked it a (-4) compared to Group Six at the opposite of (+4). Table 15 illustrates this groups highs and lows compared to the other groups.

Table 15

Group Five: High and low items

Ranking	Card No.	Corresponding Statement
Highest		
5	22	Advisor shows the same respect for all students (*)
4	25	Advisor makes sure I understand what we are talking about
4	6	Advisor informs me about upcoming deadlines
Lowest		
-4	26	Advisor spends the same amount of time with each student
-4	31	Advisor makes me feel comfortable when we meet
-5	28	Advisor reaches out to me first

(*) Indicates the statement is also a distinguishing statement for the group.

The model for how the participants in Group Five completed their Q-sort is shown in Figure 15. The model identifies the statement that the group listed as most agreed to their viewpoint to the most disagreed to their viewpoint. The participant responses to the open-ended questions reveal that this group feels strongly that the advisor outlines the course requirements

for them to complete their studies and for advisors to show the same respect for all students in order for them to feel the advisor is looking out for their best interest. Based on the highs and the narrative comments for this group, they are labeled *Advisor Expectation—Equality Focus*.

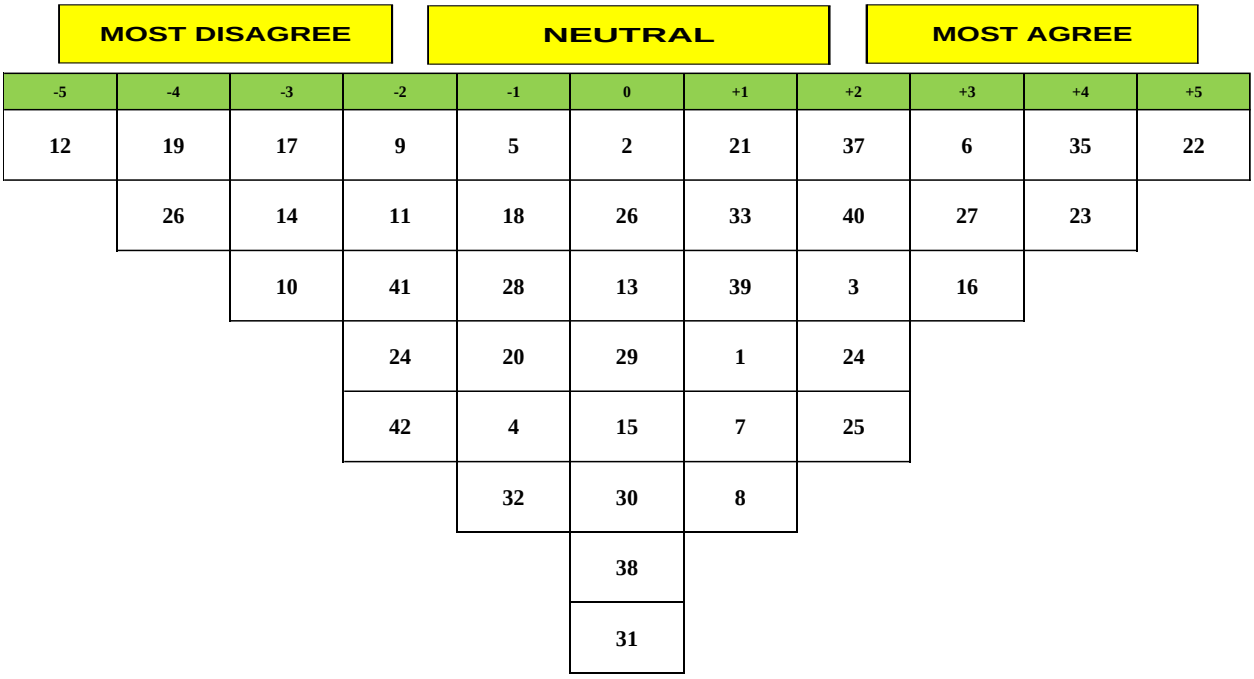

Figure 15. Model sort for Factor Five.

Factor Group Six: Advising Expectation—Guidance Focus

There was only one participant in this factor group, representing .04% of the total population and .06% of the variance. The highs for this group were statement #1 (Advisor focuses on the student's success), followed by statement #18 (Advisor shares the institution's strategy for degree programs they offer/cut) and statement #35 (Advisor provides mentoring outside of academics, such as personal needs). The lows for this group were statement #8 (Advisor helps me identify pathways to academic success), followed by statement #36 (Advisor and I have a good relationship) and statement #4 (Advisor explains why I should register for their suggested classes). There were four distinguishing statements for Group Six. The most distinguished statement is statement #6 (Advisor informs me about upcoming deadlines) where

Group Six rated it a (-3) compared to Group Four with a (+4) with all other groups also rating it neutral or on the positive side. Similar to statement #8 (Advisor helps me identify pathways to academic success), this group was the only group who rated it positive, compared to all other groups who rated the same statement on the side of disagreement. Statement #25 (Advisor makes sure I understand what we are talking about) was rated with a disagree compared to all the other groups who have rated on the side of agreed. Again, Group Six was the only group that rated statement #28 (Advisor reaches out to me first) with a positive compared to all other groups rating it negatively or neutral (+3).

Table 16

Group Six: High and low items

Ranking	Card No.	Corresponding Statement
Highest		
5	8	Advisor focuses on the student's success
4	18	Advisor shares the institution's strategy for degree programs they offer/cut
4	35	Advisor provides mentoring outside of academic, such as personal needs
Lowest		
-4	8	Advisor helps me identify pathways to academic success (*)
-4	36	Advisor and I have a good relationship
-5	4	Advisor explains why I should register for their suggested classes

(*) Indicates the statement is also a distinguishing statement for the group.

The model for how the participants in Group Six completed their Q-sort is shown in Figure 16. The model identifies the statement that the group listed as most agreed to their viewpoint to the most disagreed. This group was the only group with a participant who is a part-time student, working 30+ hours per week, and is "undecided" on a major or the type of degree

to pursue. Based on this status, it makes sense that the participant responses to the open-ended questions revealed that this group feels it is important that the advisor provide more guidance and reaches out to the student first. This group is labeled *Advisor Expectation—Guidance Focus*.

MOST DISAGREE				NEUTRAL				MOST AGREE		
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
4	8	25	34	5	22	38	10	28	18	1
	36	20	32	26	27	17	2	13	35	
		6	31	16	30	11	40	3		
			19	21	39	15	23			
			24	41	37	29	42			
				12	33	14				
					7					
					9					

Figure 16. Model sort for Factor Six.

Table 17

Participant demographics

	f	%
Gender		
Female	15	63%
Male	8	33%
Unidentified	1	4%
Race		
White/Caucasian	7	29%
Black/African American	7	29%
Latino	4	17%
Asian/Asian American	4	17%
Middle East	0	0%
Multiple Race	2	8%
Another Race	0	0%
Age		
18-20	20	83%
21-24	3	13%
30+	1	4%
TRIO		
Yes	0	0%
No	24	100%
First Generation		
Yes	8	33%
No	16	67%
Student Status		
Full Time	20	83%
Part Time	4	17%
Classes Attending		
Day Only	8	33%
Evening & Online Only	0	0%
Day & Evening	8	33%
Day & Online	5	21%
Evening & Online	1	4%
All 3	2	8%
Hours Worked Per Week		
0	10	42%

Table 17 (continued).

Between 1 – 9 hours	2	8%
Between 20-29 hours	5	21%
Between 30-39 hours	4	17%
>40 hours	3	13%
Degree Pursuing		
Associate of Arts	9	38%
Associate of Science	14	58%
Undecided	1	4%

Chapter Summary

Data was collected from 24 community college students who participated in the study. For the study, two sets of data were obtained. The first was the quantitative part from the Q-sort that was completed by each of the 24 participants. This generated six factor groups from the analysis. The second part was the qualitative data that was obtained from the open-ended questions that the participants responded to in a narrative format at the end of the survey. The narrative input gave deeper insight into why a participant had reacted the way they did on a particular statement.

Factor One: Completion Focus. This group is interested in meeting with the advisor only so that the advisor can tell them which classes to take. They want to know exactly what to do after meeting with the advisor in order to complete their studies. This group's advising expectation is to have the advisor give them specific instructions to reach completion, which is their end goal.

Factor Two: Information Focus. This group is best described as wanting to not only see an outline of the course requirements, but to have the advisor explain the why. They also want advisors to fully understand what they are talking about in their advising session. They see

the advising sessions as informative and as an opportunity to get as much information to help them make the right decisions.

Factor Three: Trust Focus. Trust is the highest priority in this group. They do not feel that they will meet with an advisor if they do not sense any trust with that relationship. With this trust, they are comfortable with the advisor and feel the advisor is there for the student's interests. They also feel the advisor will focus on the student's success and do what is best for the student.

Factor Four: Transfer Focus. This group feels that an advisor should consider the student's future plans first and then help them make the right decisions accordingly. They also want to understand why they should register for specific classes, as well as understand the transfer requirements to reach their end goal of identifying a career when they graduate.

Factor Five: Equality Focus. This group finds respect and having a good relationship with the advisor of high importance to the student's learning outcomes. This group feels that advisors should give every student the same respect regardless of race, ethnicity, age, etc. When an advisor shows them respect, they feel the advisor is on their side and they will have a better understanding of their discussions and be more informed of upcoming deadlines. They want the expectations to the student learning to be clear and use the information to improve student success by having everyone on the same playing field.

Factor Six: Guidance Focus. The one participant in this group is a part-time student, working over 30+ hours per week with a major (or pursuit of degree) that is undecided. For this group, having an advisor reach out first was important as well as having the advisor focus on the student's success. Also important was an advisor sharing the institution's strategy of programs being offered or cut, and providing mentoring outside of the academics, such as personal needs.

Without the advisor being proactive and reaching out first, this group can easily fall through the cracks or become discourage and drop out.

An overview of the participants' viewpoints related to their perception of importance to specific statements on the Q-sort was provided by the six factor groups. There was a wide array in what each of these six factor groups viewed as important within the various statements. Although there were no consensus statements in this study, it was clear that an advisor's focus on student success was of importance amongst all groups in this study. The implications of this research study, as well as any suggestions to further studies will be discussed in Chapter 5.

CHAPTER 5: DISCUSSION AND IMPLICATIONS

This study was conducted to gain a better understanding about the viewpoints and perceptions to an outstanding advising process from community college students. All 24 participants from this study were students from an urban community college who were enrolled at the institution during the Fall of 2018. Extant literature shows that more studies have been done from the viewpoints of academic advisors than from the student's perspective; therefore, the viewpoints and perceptions of community college students who have the most impact to the process fills a gap in the existing research.

This study surveyed the viewpoints of community college students at an urban institution in the south about the advising process to answer the following research questions:

Research Question 1: What are the viewpoints of community college students toward the advising process?

Research Question 1a: What are consensus items across viewpoints for the groups of students based on their viewpoints of the advising process?

Research Question 1b: What are the highest rated items for each group of students based on their viewpoints of the advising process?

Research Question 1c: What are the lowest rated items for each group of students based on their viewpoints of the advising process?

Research Question 1d: What distinguishing statements among viewpoints for each group of students based on their viewpoints of the advising process?

The results of the research can be a building block for community colleges to enhance their advising process.

From the literature, web searches, conversation with peers, and my own thoughts, a final Q-set of 42 statements regarding the advising process was created. To measure and study the perception of participants, which is subjective, Q methodology was used for this research to examine the viewpoints from a specific population. The process of Q methodology, including a description of the method, research design, process for the data collection, data analysis and interpretation of the data were discussed in Chapter 3. Chapter 4 provided the results of the data analyzed including data correlation, factor scores, factor arrays, Z scores, and consensus and distinguishing statements. Also included in Chapter 4 was a discussion of the different factor groups that were carefully reviewed to gain a better understanding of the factor groups' perception. There were six factors that were grouped by the dissimilarity of their sorts: 1) Factor Group One—Completion Focus; 2) Factor Group Two—Information Focus; 3) Factor Group Three—Trust Focus; 4) Factor Group Four—Transfer Focus; 5) Factor Group Five—Equality Focus; and 6) Factor Group Six—Guidance Focus.

In this final chapter, the implications of the advising process based on the factor groups are explored through the participants' narrative statements that were compiled. Furthermore, further study of this research in relation to the advising process and the research method will also be addressed.

Limitations

This research was conducted to study community college students' perceptions and viewpoints of the advising process. The study was focused on a targeted population of community college students who were enrolled during the Fall 2018 semester at an urban institution in the south. As stated in the Institutional Review Board submission, potential participants for selection in this study were identified through a list of e-mail addresses of

students that was obtained through the institution's student database. From the list, I e-mailed students requesting their participation in the study. The demographic information provided "at will" by the prospective participants will helped me to ensure diversity within the sample. While a broad distribution of 3,437 e-mails from the database was provided to recruit participants for the study, over 420 e-mails were returned "undeliverable" with a very high percentage of e-mails being ignored. The assumptions to why e-mails were ignored may have been, but not limited to, students not having access to computers outside of the institution; students having no interest in reading a lengthy e-mail; timing was too close to the end of semester, students were focused on finals; or students simply had no interest. Of the 30 who did respond with enthusiasm to participant, six were disqualified based on the age listed on the demographic form as all participants needed to be at least 18 years old. Participants in this research study were also only available for a limited time period between November 25, 2019 and December 17, 2019 with holidays, finals in progress, and end of semester barriers. An open recruitment effort during the beginning of the semester in high concentrated areas like the registrar's office, student lounge, library, or advising center could have been advantageous to recruit a larger group of participants. A larger group may have increased the dataset, which may have resulted in a different outcome of the factor loading based on participant viewpoints.

The most considerable limitation in this study was the restriction to community college students from only one institution, especially as it was close to the end of the semester and upcoming holidays. Because this Q-sort was conducted manually with an 11 x 17 template and 42 statement cards, and a lack of working space, at times, there was a struggle. The ideal environment for future studies is to have all the participants in a classroom setting where each student has enough work space to spread out to maneuver the statements cards on their template,

or potentially have a mix sort where an electronic version would be an option to provide students with more flexibility in completing the Q-sort.

Implications

The results from this study have implications to the advising process for this one community college but should be considered by other institutions. Based on the narrative responses from the participants, it is not the quantity of advising, but the quality of advising the advisor provides to students that is most important to them. There were no participants who identified that an advisor had reached out to them first, nor was there any sense of frustration or disappointment from the participants that advisors had not reached out to them first. The results of this study are similar to Sutton and Sankar (2011) who found that the provision of course-specific information did lead to higher student satisfaction with advising.

In this study, participants rated some statements, such as "Advisor explains which class to register," "Advisor helps me understand transfer requirements," and "I know exactly what to do after meeting with an Advisor" of high importance to them. According to McGuen et al. (2009), they found that some student complaints included their perceptions that the advisors were too overwhelmed to provide adequate advising or that they had minimal time with their advisor. From the narrative summaries of the participants, there was no indication that any student felt rushed with advisor meetings and overall, they had a good experience with the advising process. Based on the narrative comments, some students did not perceive that the advisors were overwhelmed to provide adequate advising because the sense was that many felt they would not be meeting with their advisor about a career, but rather they would visit career counseling for career advising as an advisor may not have enough time to give them guidance on both academic and career advising during the same visit.

Implication for Practice #1: Find a Median

Because every student is unique and not every institution operates in the same manner, we need to find a median where the process and services can complement each other to provide a student with an advising process that is balanced. Based on the results of the study, students would like to see more clarity in the advising process about the student's path, advisement to which classes to take/register, and assistance in helping them make the right choices. In alignment with the student's perception to an outstanding advising process, advisors can outline the courses required, explaining how these courses will impact their transfer requirements and completion. Even though advisors may have different roles (e.g., academic advising, career advising, etc.), it would be beneficial for advisors to not necessarily be an expert in the career field, but at least have an understanding of the labor market, or for a career counselor to understand the institutions curriculum for completion.

Implication for Practice #2: Enhance Academic Advising at the college

Research has shown that students are dissatisfied with the advising they receive and that much of the dissatisfaction is attributed to the lack of clarity in the role of the advisor (Allen & Smith, 2008). Instead of suggesting that faculty needs to do more to improve advising, institutions may need to consider if it is even reasonable to expect that any one individual would be able to provide all advising activities that the literature suggests are indicative of quality academic advising (Allen & Smith, 2008).

Based on the findings from this study, students see the advising process as a helpful tool for their success. Even with the satisfaction of the advising process from the students who participated in this study, there are suggestions to enhance the advising process for an even better experience. There were six focus areas identified by the factor groups: Completion, Information,

Trust, Career Development, Equality, and Guidance. Participants felt quality to the advising process is needed for students to be successful. Suggestions are included in the following paragraphs to enhance the advising process through each focus.

Completion focus. For students who are strictly interested in completion, advisors can bring clarity to the student's path by explaining which classes they need to take and register for, as well as helping them understand the transfer requirements. This way the advisor is focused on helping the student pick the best choices for completion.

Information focus. These students want to gain as much information as possible from the advisor, so that they can make the right decisions. Advisors will need to explain clearly why they need to take certain classes and provide the student with as much information as possible as well as let them know where to go for additional resources. For transfer students, they firmly believe that the advisor's top priority is to provide as much information about the transfer requirements that are significant to their success.

Trust focus. When there is a lack of trust in the advisor from the students, they will find no value or interest in meeting with the advisor. To enhance the advising process for this group, advisors must be trustworthy. There needs to be a good relationship between the student and advisor. With this trust, students will feel that the advisor is looking out for their best interest and focusing on the student's success. By being transparent and honest with the student, as well as providing some coaching/mentoring, advisors will increase the student's trust.

Transfer focus. This population is interested in the "why" and they want to focus on their future career plans. With these students, advisors can explain why they should register for specific courses because it can lead to jobs where there is currently a demand in the market. When advisors consider students' future plans first and advise accordingly to help them make the

right decisions for their future, this helps to direct students to making the right choices for their future career that will lead to a sustainable income versus a career that may become obsolete.

Equality focus. Because community colleges have such a diverse pool of students, it is essential for students to feel they are treated equally compared to other students. It is vital for advisors to show the same respect to all students for students to trust and approach the advising process with a positive mindset. Students who feel they are not treated equally will think the advisors are not there to help students succeed, or the advisor does not have the interest of the student in mind. Understanding students and providing the same respect does not require much of advisors, but the potential impact of not doing this can be detrimental.

Guidance focus. This population of students will need a lot of hand holding. Many of these students are part-time students working long hours or full-time. They are not sure what major they should be pursuing or what classes to take. Because of their limited time, they will need extra guidance by the advisor to help them get on track. The advising process can be enhanced for this population by understanding the student's goals and barriers to develop a plan that will help the student based on their schedule—an example is to offer the student to take an online class versus being in person, where the student may be late or miss classes due to their work schedule.

The advising process can be enhanced by tweaking existing processes in each of the focus areas to increase student success. Institutions need to look at the different advising models to create a collaborative environment between students, faculty, and advisors to ensure that students get what they need to succeed.

Recommendations for Future Research

This study focused on the community college students' perception of the advising process. The research was limited because it was conducted at one institution. Given the results of this study and knowing the strength and weaknesses, three recommendations can be made for future research.

Recommendation #1: Replicate with multiple community colleges. The first recommendation is to replicate this research but expand the study to include a larger sample with multiple community colleges in the southern region or to conduct the study at two different institutions in the same setting to see if the same perceptions are found. By expanding the sample pool and various institutions, the number of participants will allow a more bona fide depiction of the data that will surface from the study. This will enable more generalization across institutions that may have more meaning beyond the one institution studied in this particular study.

Recommendation #2: Research advisors' perceptions. This research was limited to community college students' perception of the advising process and did not take into account the perception of the advisors. Most studies have been done based on the perceptions individually and not with both. The second recommendation is to explore the opinions of the advising process by the advisors at the same institution and compare their viewpoints with the students from the same institution.

Recommendation #3: Create a quantitative survey. Because Q methodology is a mixed of both qualitative and quantitative study, a quantitative survey will be objective with focused outcomes. The hypothesis will be specific and testable to the particular study to further

investigate the perceived influences on the advising process on a broader scale from all stakeholders, including advisors, students and administrators.

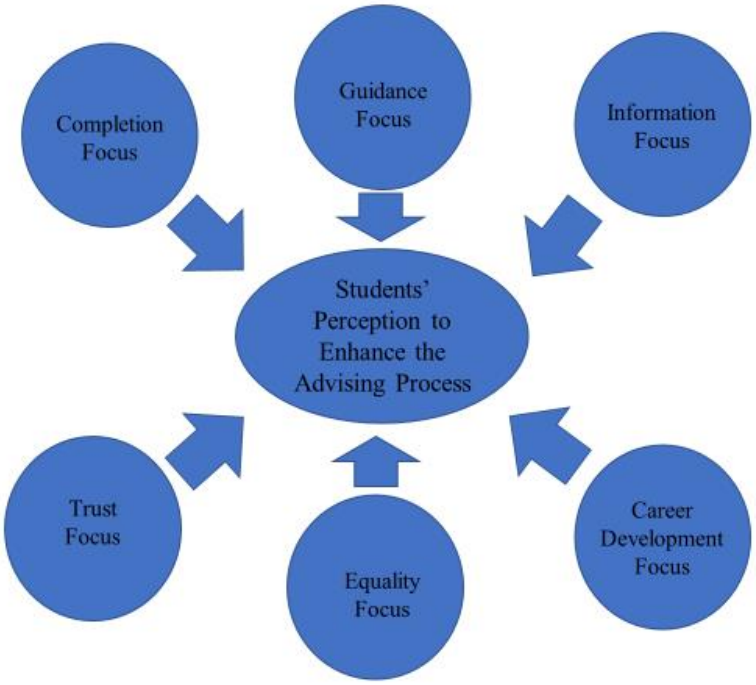

Figure 17. Factor focus to enhance advising

Based on the factors identified through this study, there were specific areas of focus that are important to the students that can influence the advising process. As stated earlier in the chapter, each of these six focus areas: Completion, Information, Trust, Career Development, Equality, and Guidance, individually, have their own requirements to student success, but when you combine all the factors together, this can create a dynamic powerhouse to reinforce the quality of the advising process.

Recommendation for Future Q Studies

This research study had some challenges that should be addressed for any future studies when researchers are considering the Q-sort to be conducted manually. Since the sort is done face-to-face, there is a higher potential for scheduling conflicts. Even though an electronic

process will gain easier access and flexibility, the qualitative part of the post sort may be more advantageous to a sort conducted manually due to the accessibility of the researcher to directly communicate with the participants to gather more robust information and clarification to the narrative responses in the moment. All the participants for this study had no knowledge of Q methodology, or the involvement required, which may have contributed to the low participation. It is suggested that any Q-sort that is done manually be done in a setting where all the participants can be there at the same time. An example will be to recruit the targeted population in an area where community college students tend to congregate (e.g., student lounge, registration, library, etc.) and provide some type of non-financial incentive which usually helps to get more participants to be interested and engaged.

Chapter Summary

Community colleges continue to look for new ways to serve the growing student populations who come with a diverse set of educational needs. Like any organization, decreasing budgets and funding requires them to do more with less. One way that community colleges can serve and meet student needs is to enhance the advising process.

A Q methodology research study was conducted to explore community college students' viewpoints and perceptions of the advising process. There was a total of thirty volunteers who responded to participate in this research study and 24 of those respondents participated with their responses used in the data analysis for this study. The participants were asked to rank 42 statements related to their viewpoints on the advising process. Once the ranking was completed, participants were asked to answer narrative post-sort questions that collected information on their demographic features. Through this post-survey, they also had the opportunity to refine their responses to the sort based on their viewpoints. The data analysis conducted revealed six factor

groups of Advising Expectations, including 1) Completion Focus, 2) Information Focus, 3) Trust Focus, 4) Transfer Focus, 5) Equality Focus, and 6) Guidance Focus. Several statements were sorted between the groups that were somewhat similar, each factor group sorted statements in a manner that was different from each of the other groups. It was the way that each of the factor groups had sorted the statements that granted the differences between the groups.

An explanation for the reasoning for a Q-sort to be conducted for this study was provided in this study. This chapter also included an overview of the research method used to analyze the data that contributed to the overall outcome of the results from the data analysis. There were several limitations outlined that may have affected the outcome of this study, as well as discussions of the implications to how this research study can be enhanced. Finally, recommendations were provided in this chapter for further research based on the overall results of the study.

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APPENDICES

Appendix A: Concourse Statements

1. Advisor focuses on the student's success
2. Advisor helps me during academic difficulties
3. Advisor explains which classes to register for
4. Advisor explains why I should register for their suggested classes
5. After advising I am more likely to engage in institutional activities outside of class
6. Advisor informs me about upcoming deadlines
7. Advisor informs me of academic support options
8. Advisor helps me identify pathways to academic success
9. Advisor helps me identify the correct major
10. Advisor helps me understand transfer requirements
11. Advisor outlines the course requirements to complete my studies
12. Advisor helps me understand the labor market demand/need of my area of study (are there jobs)
13. Advisor helps me understand the salary impact of my area of study
14. Advisor considers my future career plans when helping me make decisions
15. Advisor provides career counseling
16. Advisor connects me with career resources (career center, job boards, etc.)
17. Advisor makes me aware of different career opportunities
18. Advisor shares the institution's strategy for degree programs they offer/cut
19. Advisor helps develop soft skills needed for the labor market
20. Advisor explains how area of study will benefit student in labor market
21. Advisor encourages me to seek out diverse cultural experiences

22. Advisor shows the same respect for all students

23. Advisor understand the different cultures

24. Advisor is willing to meet more than once per semester

25. Advisor makes sure I understand what we are talking about

26. Advisor spends the same amount of time with each student

27. Advisor listens closely to my concerns and questions

28. Advisor reaches out to me first

29. Advisor is accessible

30. Advisor has meaningful conversations with me

31. Advisor makes me feel comfortable when we meet

32. Advisor understands my concerns

33. Advisor helps me navigate institutional rules and policies

34. Advisor directs me to additional resources

35. Advisor provides mentoring outside of academics, such as personal needs

36. Advisor and I have a good relationship

37. Advisor is trustworthy

38. Advisor encourages me to take responsibility for myself

39. Advisor encourages me to make my own decisions

40. I know exactly what to do after meeting with the advisor

41. Advisor helps me identify pathways to social success

42. I am motivated after meeting with the advisor

Appendix B: Sorted Z Scores for Each Statement by Factor

Statement	Factor 1	Statement	Factor 2	Statement	Factor 3	Statement	Factor 4	Statement	Factor 5	Statement	Factor 6
40	2.2	30	9.6697	16	9.1561	4	1.9808	22	2.6064	1	2.1584
3	1.9	2	8.5828	32	7.4415	10	1.8675	25	1.9477	18	1.7267
10	1.5	10	8.4670	22	5.7490	1	1.8121	6	1.7850	35	1.7267
9	1.4	1	6.5412	15	5.4073	22	1.6370	1	1.4895	3	1.2950
4	1.4	9	6.4856	26	4.8638	25	1.4479	23	1.3170	13	1.2950
29	1.1	42	5.5746	11	4.6060	14	1.2931	40	1.2318	28	1.2950
11	1.0	18	4.8450	25	2.6616	9	1.0283	35	1.2220	2	0.8633
25	1.0	27	3.5474	30	2.4319	18	0.9916	27	0.9741	10	0.8633
24	0.9	15	3.4900	40	2.4319	3	0.8165	21	0.9537	23	0.8633
1	0.8	37	3.0136	37	2.0884	11	0.7610	34	0.6211	40	0.8633
14	0.6	31	2.6320	2	1.6794	16	0.5141	36	0.5252	42	0.8633
37	0.6	34	2.6320	10	1.5936	17	0.4750	9	0.5154	11	0.4316
32	0.5	11	1.7603	1	1.5852	13	0.4383	37	0.4108	14	0.4316
22	0.5	4	1.7565	27	1.4647	7	0.3829	13	0.4003	15	0.4316
42	0.5	29	1.5208	39	1.2619	27	0.3618	3	0.3056	17	0.4316
31	0.4	25	1.5085	17	1.2389	32	0.3250	7	0.2580	29	0.4316
6	0.3	35	1.5068	8	1.2075	15	0.3063	42	0.2100	38	0.4316
18	0.3	39	1.3579	14	1.1817	40	0.2672	38	0.2001	7	0.0000
35	0.2	7	1.2683	35	1.1100	23	0.2648	32	0.0577	9	0.0000
30	0.1	16	1.1480	13	-1.1100	8	0.2305	39	0.0476	22	0.0000
27	0.1	38	1.1328	33	-1.1901	37	0.0390	24	-0.0003	27	0.0000
2	0.1	21	1.1251	18	-1.3420	6	-0.1360	20	-0.0578	30	0.0000
28	-0.1	3	1.1213	4	-1.4821	33	-0.1890	33	-0.2577	33	0.0000
20	-0.3	6	1.1176	34	-1.4905	34	-0.2672	18	-0.3529	37	0.0000
16	-0.4	36	-1.0088	21	-1.5134	39	-0.2672	2	-0.4003	39	0.0000
39	-0.4	24	-1.1025	42	-1.5473	12	-0.3250	8	-0.4578	5	-0.4316
26	-0.4	26	-1.2301	6	-1.6865	36	-0.4930	15	-0.6208	12	-0.4316
8	-0.5	13	-1.2835	12	-1.9443	26	-0.5532	14	-0.6586	16	-0.4316
36	-0.6	20	-1.3920	20	-1.9443	28	-0.5532	41	-0.7263	21	-0.4316
7	-0.6	33	-1.4933	5	-2.0228	21	-0.6274	17	-0.7639	26	-0.4316
38	-0.6	12	-1.5467	3	-2.3479	42	-0.6665	12	-0.7743	41	-0.4316
34	-0.7	19	-1.6325	41	-2.3479	30	-0.7423	19	-0.8216	19	-0.8633
13	-1.0	8	-1.6589	28	-3.1433	29	-0.7634	4	-0.8788	24	-0.8633
41	-1.0	17	-2.6320	31	-3.9785	38	-0.8736	29	-0.9160	31	-0.8633
19	-1.0	28	-2.7654	29	-4.2922	2	-0.8971	16	-1.0682	32	-0.8633
23	-1.0	41	-3.9092	9	-4.5220	41	-1.0830	11	-1.1165	34	-0.8633
17	-1.1	22	-3.9867	19	-4.7739	19	-1.2010	10	-1.2795	6	-1.2950
5	-1.4	5	-4.2909	38	-6.3264	31	-1.2385	5	-1.2894	20	-1.2950
33	-1.5	40	-5.1119	7	-6.7241	5	-1.3901	26	-1.3265	25	-1.2950
21	-1.6	32	-5.4161	36	-8.3267	35	-1.4276	31	-1.3265	8	-1.7267
15	-1.6	14	-6.6596	23	-8.8983	20	-1.5424	28	-1.3844	36	-1.7267
12	-1.7	23	-9.7846	24	-9.4698	24	-2.0036	30	-9.6107	4	-2.1584

Appendix C: Post-Survey Questionnaire

KEEP YOUR CARDS DISPLAYED

When all the boxes are filled:
Write the card numbers in the diagram on the Q sort blank page that was provided.

After you fill in the diagram, answer the remaining questions.
When all the questions have been answered, please return completed forms to the **researcher**.

Post Q Sort Questions:

1. Card # _____: Why did you place this card "**most agree**" under **+5?**

2. Card # _____: Why did you place this card "most disagree" under -5?

3. Were there specific statements that you had difficulty placing? *Choose one and list the number from the statement card and describe the difficulty.*
   Card # _____

4. What 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 statement say on the card and where would you have placed it?

6. Do you feel there are any components that were missing?

7. Do you have any additional comments?