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SUCCESS PROGRAM ON FEELINGS OF A SENSE OF BELONGING**

Alexandra Sophia Cruz

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THE EFFECT OF A DISCRETE HIGHER EDUCATION STUDENT SUCCESS PROGRAM
ON FEELINGS OF A SENSE OF BELONGING

presented by

Alexandra Sophia Cruz

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of the Requirements for the Degree of

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ABSTRACT

This mixed methods case study examined how a student success program at a private four-year college in the eastern region of the United States may enhance student success and students' associated feelings of a sense of belonging. Results and findings add to the overall student success literature and may benefit other institutions in higher education through viewing sense of belonging as a gateway to retaining students. The researcher used an explanatory sequential mixed method design that involved collecting quantitative data first through a University Belonging Questionnaire (UBQ) and then explaining the quantitative results through in-depth qualitative data acquired through zoom interviews. Participants included a sample of 10 students in the student success program and a sample of five coaches in the program, where five students were advisees of the five coaches interviewed. Three themes emerged from the data analysis: communication, individual relationships, and connections. These themes related to instilling feelings of a sense of belonging.

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Chapter One: Introduction

Student attrition has been a critical issue since the establishment of higher education institutions (Salinitri, 2005), and universities are beginning to see retention as an indicator of stability within the institution (Olbrecht et al., 2016). Multiple theories of college student retention and success congregate on the importance of student engagement and sense of belonging, since relationships with faculty and staff directly influence students' withdrawals and departures from universities. Mentorship impacts a student's academic success and the collaborative efforts of faculty and staff members to support student learning has an impact. With that said, there is a need for focused efforts to develop policies and practices resulting in better outcomes for students and higher education institutions (Braxton et al., 2000; Burke, 2019).

Context of the Issue

Models of Student Success and Retention

Entrusted with the education of Odysseus' son, Greek mythology is the source of the concept of mentoring from the mythical legend of a mentor, friend and counselor (Fontaine, 2020). "Mentoring provides meaningful connections that impact the people involved and influence their lives at home, at work, and in their communities", as stated on mentoring.org (n.d). Mentoring is linked to improved academic, social, and economic prospects for those mentored and a mentoring relationship can build leadership and management skills, expand a mentor's professional network, and provide an empowering opportunity to give back to the community.

Theoretical models of student retention, grounded in sociology and philosophy, provide insight into the student attrition phenomenon (Spady, 1970; Tinto 1975, 1993). These models draw on two systems, academic and social, that influence a students' decision to withdraw. The Spady (1970) model uses the suicide theory of Durkheim, which comes from the field of sociology. The suicide theory provides a parallel to institutional attrition in that poor academic performance, along with a deficiency in relationships, leads to students leaving the university (Burke, 2019). Another consideration is the cultural connection that students feel to the institution (Kuh & Love, 2000). The models show there are many student characteristics that need to be considered when examining student success. Factors such as educational background, personality characteristics, an institution's culture, and social norms all impact a student's ability to succeed in higher education, which is a complex phenomenon and is difficult to measure (Burke, 2019; Kuh & Love, 2000).

Thriving

From the emerging perspectives and models of student success is a construct known as "thriving" suggesting a successful college experience goes beyond grades and graduation (Schreiner, 2010). When combining higher education with an aspect of positive psychology, a developing construct known as "thriving" explains a holistic view of success beyond the academic indicators of college GPA, retention, and graduation. Thriving combines the psychological retention model posited by Bean and Eaton (2000) within higher education research and the optimal emotional and relational functioning conceptualized as *flourishing* by Keyes and Haidt (2003) in psychological research.

Thriving occurs when students are intellectually, socially, and psychologically engaged in the college experience. This is a holistic approach that leads to persistence, rather than viewing

success as whether the student graduates and merely survives (Schreiner, 2010). Thriving students are often more successful academically, develop a strong sense of community, and have higher levels of psychological well-being. Thriving goes beyond the successes of the classroom and incorporates successes outside of the classroom (Schreiner, 2013).

Five scales on the thriving quotient represent the three domains of thriving, which together provide a holistic view of student success that incorporates sociological, educational, and psychological constructs. The first is the academic domain, which encompasses two scales, Engaged Learning and Academic Determination; the second domain is psychological thriving, measured by the Positive Perspective scale; the third domain is interpersonal thriving, which includes the scales of Diverse Citizenship and Social Connectedness (Schreiner, et al., 2011; Schreiner, 2016).

Mentoring

The theoretical models of student retention draw on the importance of social spheres, which leads into developing a relationship with the institution. Part of this social dynamic includes providing support, as done through mentoring and advising. According to Young and Wright (2001), mentoring exhibits common behaviors: nurturing, coaching, and guiding, and the structure of mentoring relationships should benefit both the mentor and the mentee. As mentoring has positive effects, both academically and socially, it is multi-layered as it can improve a students' performance, which can then enhance students' self-esteem and self-efficacy (Rhodes, 2008). Mentors develop skills that are transferable to teaching, such as leadership, skill development, and self-confidence (Salinitri, 2005).

Mentoring as an intervention for students with low proficiency levels has a dramatic effect on retention, which is critical to higher education institutions (Salinitri, 2005). But

retention is highly complex and difficult to predict. Educational background, personality characteristics, and social norms all potentially impact a student's ability to succeed in higher education and are extremely difficult to measure and account for in theoretical models. However, retention is a function of social integration, and students who feel connected are more likely to persist (Burke, 2019). Numerous studies have found a positive effect for mentoring (Bernier et al., 2005; Donaldson et al.; 2016; Heisserer & Paratte, 2002; Salinitri, 2005; Startz, 2019). Understanding how mentoring can play a key role in retention for higher education can provide further insight into effective components of student success programs that target at-risk students and promote academic success.

Program of Study

Achieving College Excellence

When retention rates were only around 70 percent at the study site, as indicated by graduation rates and degree completion, the institution created a program to enhance student success skills. The program is a student success initiative that incorporates evidence-based components related to student persistence. Qualifying students are those who at the end of their first two semesters do not have the requisite grade point average (GPA) to keep their merit scholarship. The university then offers participation in the program, which has three components: an academic success course, academic success activities, and an academic coach, and consists of advising, online student success courses, and other required experiences. The program is self-paced, and many students complete it by midway through the semester of the program. Students participate in engagement activities to provide them with valuable information about goal setting, growth mindset, time management, test-taking skills, sense of belonging, and learning techniques. Students also participate in activities using the learning center and the library and

participate in other workshops, including workshops about financial aid and career advisement. They also meet one-on-one with their academic coach, with at least three meetings as a program requirement.

The institution tracks the GPAs of those students receiving scholarship money who may lose their scholarship should they not meet the minimum academic requirement, which is below a 2.8 GPA. To retain their scholarship eligibility, those students who fall under this category qualify to participate in the Achieving College Excellence (ACE) program. The study site's institutional research department runs a report and shares it with the financial aid department to find those students who qualify for the program. The university uses the following criteria to identify the students: currently receiving an institutional scholarship; earned cumulative GPA from 2.2 to 2.79; classified as sophomore or junior based on cumulative number of completed credits; and have not completed the ACE program four times. All students who meet the above criteria receive an email with an invitation to join the program.

To recruit academic coaches, the study site sends an email in the spring semester for the following academic year inviting faculty and staff to join the list of academic coaches in the ACE program. The academic coach is there to assist the students to meet their goals and to ask and answer questions, provide guidance and feedback, and encourage accountability. Per the study site, the role of an academic coach is to check in with an assigned student or students throughout the semester and provide academic guidance and overall support. Coaches should be able to discuss any struggles the student may be facing, provide encouragement and accountability, and refer the student to relevant academic resources on campus. Academic coaches complete a required training course, meet with their student(s) a minimum of three times per semester, and record the student(s)' progress. During the summer, there is a match made

between coaches and students. Both the academic student and the coach complete a survey, which includes information on their department and/or major, along with their hobbies and interests. Students match with a coach in their area/major or department and by common interests and hobbies. Furthermore, the study site also tries to match students with coaches on their home campus.

A part of this program is fostering a success-oriented mindset and a sense of belonging by offering an online academic success course and academic success activities. Online modules include required courses consisting of the following: growth mindset, sense of belonging, and SMART (Specific, Measurable, Achievable, Realistic and anchored within a Time frame) goal setting. Other modules the students can choose are career exploration, test taking strategies, improving time management, study techniques, becoming resilient and gritty, and financial literacy. In addition to these modules, there is a group classroom session, which is where students have an opportunity to ask questions and discuss the ACE program. Some of the engagement activities may include: a session with a library specialist, a graduation planning meeting, or a tutoring appointment.

Purpose of the Study

Preliminary information provided in this chapter points to current retention challenges in higher education and how mentoring can play a key role in retaining students. Chapter two provides a more in-depth analysis of student retention theories, student success in relation to retention, mentoring and advisor support, sense of belonging and connectedness, engagement activities, first year student studies, and retention programs. Although the research on the relationship between mentorship and retention is abundant, after an extensive search the

researcher did not find a study that examined how a discrete student success program and academic sense of belonging relate to each other and to student success.

Thus, the purpose of this study was to examine how the ACE program and its specific components may enhance student success and students' associated feelings of a sense of belonging. The researcher used an explanatory sequential mixed method design that involved collecting quantitative data first and then explaining the quantitative results through in-depth qualitative data. In this explanatory follow-up, the plan was to explore improved student outcomes that were above and beyond the scholarship support achieved because of the specific student success program.

Significance of the Study

Student retention in higher education is important (Nutt, 2003). Higher education is a competitive market and student retention is of key importance in a results-driven environment. Students dropping out or moving to a different institution cause a loss of revenue and impact graduation rates (Routledge, n.d.). One of the steps an institution can take to improve student success is data-informed proactive advising, which includes tracking and being pro-active with early alerts when students may be in trouble. Another step is fostering a success-oriented mindset and a sense of belonging (Mintz, 2019). Campus leadership and academic advisors understand the importance of incorporating advising strategies within a university to promote student success (Darling, 2015). This is why institutions of higher education could benefit from this research and assessment of the student success program at the study site. By exploring the perceptions of what encompasses a sense of belonging as part of a student success program, the

researcher measured the effectiveness of the program in terms of a sense of belonging. Other institutions of higher education could benefit from the data collected on the program model.

Interdisciplinary Nature of the Study

Interdisciplinary study draws on disciplinary perspectives and integrates their insights. Interdisciplinary studies are a “cognitive process by which individuals or groups draw on disciplinary perspectives and integrate their insights and modes of thinking to advance their understanding of a complex system with the goal of applying the understanding to a real-world problem” (Repko et al., 2017, p. 12). The interdisciplinary research approach studies a topic or question that is inherently complex and whose parts are the foci of two or more disciplines. Furthermore, this approach views the subject as a complex system with multiple interacting parts and aims for the study to create common ground among different disciplines to produce a more comprehensive understanding (Repko et al., 2017).

The literature supported the idea of academic advising being a unique, interdisciplinary field which reinforces diverse goals within higher education (Himes, 2014). Per the National Academic Advising Association (2006), academic advising “engages students beyond their own world views, while acknowledging their individual characteristics, values, and motivations as they enter, move through, and exit the institution” (para. 4). As advisors have diverse educational backgrounds, there are evolving advising theories. To continue to clarify the role of advising within higher education, this researcher feels that practitioners should move away from analogical theories, where there is a comparison between isolated theories, to normative theories where there is a focus on the unique goals and complexity of the field. Theories surrounding academic advising can be based in education, psychology, and the humanities, including integration from developmental, self-authorship, hermeneutic, postmodern, and learning-

centered theories (Himes, 2014). The ACE program brings many of these aspects together by focusing not just on grades, but also on enhancing success skills in key areas.

Many of the theories have recurring themes. Per Himes (2014), the following themes overlap: development and acquisition of skills (decision making, critical thinking, ownership, and responsibility), the role of the learning process in constructing knowledge (goal setting, disequilibrium, and self-reflection), and multiple perspectives and interpretations. These themes relate to the researcher's mixed methods choice of approach and explain why a part of the basis of this research will be qualitative in nature, which is based on the belief that knowledge is constructed, rather than discovered (Stake, 1995). From the themes, the researcher plans to synthesize existing theories to meet the complex and unique goals of academic advising (Himes, 2014).

Research Questions

1. What are the ACE participants' perceptions of the student success program in terms of supporting their efforts to develop a sense of belonging within the institution?
2. What characteristics of the ACE program influence the students' sense of belonging?
3. What are the ACE participants' perception of student success barriers that adversely affected their sense-of-belonging beliefs?

Definition of Key Terms

The following is how these terms are used in this study:

Academic advising is learning-centered, student-focused activity that engages the student and advisor to formulate educational plans that lead to future success in education (Darling, 2015).

At-risk student is a student who is considered to have a higher probability of failing academically or dropping out of school. For example, a student whose cumulative GPA placed him/her below academic good standing at their university (edglossary.org).

Academic mentoring is where a faculty member imparts knowledge, provides support, and offers guidance to a student on academic and non-academic issues (Jacobi, 1991).

Mentee, for the purpose of this study, is a participant in the ACE program who is assigned to an academic advisor

Mentor, for the purpose of this study, is a faculty or staff member who provides support and guidance to ACE participants

Retention is when students return to the same higher education institution (Tinto, 2012).

Conclusion

The intent of this chapter is to introduce a study that seeks to explore a discrete example of a student success program whose goal is retaining students. This study may allow colleges and universities with similar profiles to that of the study site to draw on the positive outcomes of the ACE program so as to employ strategies to improve both retention and student success. Furthermore, this study examined the effect of the ACE program through the lens of a sense of belonging and evaluated the program based on factors beyond academic and graduation rates. The study was interdisciplinary in nature and contributed to both theory and practice. This knowledge may guide other universities to develop powerful mentoring programs within their institutions and provide a roadmap to improve the academic, social, and personal support of the students they serve. In a climate of enhanced accountability, further evidence is needed to

determine how a student success program and an academic sense of belonging relate to each other and to student success.

Chapter Two: Literature Review

The purpose of this study was to examine how the ACE program and its specific components may enhance student success and students' associated feeling of a sense of belonging. The researcher explored strategies to improve both retention and student success based on the specified student success program.

The literature review is presented in eight major sections. These include (1) student retention theories; (2) student success in relation to retention; (3) mentoring and advisor support; (4) sense of belonging and connectedness; (5) engagement activities; (6) first year student studies; and (7) retention programs.

Student Retention Theories

There are multiple theories surrounding student retention in higher education. Current researchers categorize theories of departure and retention based on the most recent research that is focused on models of student growth, student satisfaction, and persistence (Tinto, 2012). These theories showed that there were both academic and social factors impacting student attrition. The interplay of the models demonstrated how complicated the social and academic variables were and how, when combined with current research, developing, and addressing these spheres resulted in more students persisting toward graduation (Burke, 2019). Based on this, college students were in a state of change and needed academic advice to achieve success during a college transition (Tinto, 2012). Through examining the work of Tinto, Astin, and Kuh and Love, this researcher understood the foundation for how student engagement and involvement

impacted student success in college. Though researchers measured student success in terms of academic performance and persistence toward graduation, Schreiner (2010) felt there was more to a successful college experience than grades and graduation.

Sociological and Psychological Perspective Models

Research prior to the 1970's focused on traits, such as, gender, race, and socioeconomic class, to determine characteristics related to student attrition (Tinto, 1975); subsequently, the models incorporated the interaction between individuals and institutions. Two of these classic models, grounded in sociology and philosophy, were Spady's (1970, 1971) and Tinto's (1975, 1993).

Undergraduate Dropout Process Model

One of these models was the Undergraduate Dropout Process Model by Spady (1970), which incorporated Durkheim's theory of suicide relating to student attrition. This model was a breakthrough as it looked beyond individual characteristics and moved to an interdisciplinary approach to understand student retention as an interaction between the student and the college environment. This theory assumed two main systems: the academic system and the social system. According to Spady (1970), grades in the academic system and attitudes, interests, and personality in the social system measured success. Spady's theory said that poor performance, and a lack of intimate relationships, may lead to attrition. According to Spady's model, the four variables of attrition are: intellectual development, social integration, satisfaction, and institutional commitment (Spady, 1970).

Institutional Departure Model

Another theory was Tinto's Institutional Departure Model (1975, 1993) which expanded upon Spady's theory, but relied heavily on social integration, where he argued that the social transition for incoming, first-year students was essential for their success. According to Tinto (1975), students must develop relationships and a new community to be successful in college. Tinto's model also had an academic and a social system, like the model developed by Spady. In this model, the student demonstrated a level of commitment to personal goals, including grades and graduation, resulting in academic motivation. On the other side, the student demonstrated institutional commitment through a social network (Tinto, 1975 and 1993). Tinto revised the theory several times based on further research, which included the development of a formal theoretical framework that organized research on student departure into psychological, sociological, economic, organizational, and interactional perspectives, and then later considered the experiences of students of color and students at two-year colleges. Tinto concluded that a student's decision to remain in school resulted from a combination of personal goals and institutional commitment. Feelings of rejection, coupled with not being able to find a sense of belonging in higher education, were key causes of student attrition (Tinto, 2012).

Causal Model of Student Persistence

To determine what factors related to student attrition, Bean (1980) investigated attrition in higher education and developed the Causal Model of Student Persistence. The model was developed to understand interactions between environmental factors and the higher education institution and to consider the background characteristics of students. Student attitudes, such as satisfaction with college life, feeling a sense of self-efficacy as a student, recognizing the tangible value of one's education, and feeling stress as a student, impacted student retention

directly or indirectly by affecting institutional fit and commitment. Bean's model also emphasized the importance of recognizing that students come to college with attitudes and expectations and, through their campus experiences, developed new attitudes and beliefs that shaped their intention to stay enrolled or leave college. Bean's (1980) findings indicated that institutional commitment to the student was the primary variable that influenced the decision to drop out.

Student Involvement Theory

A theory involving student persistence was Astin's Student Involvement Theory, which focused on the psychological, including the amount of physical and psychological energy the student put into the academic experience. This shifted the weight of student success from the institution to the need for students to be involved; essentially, the actions students took to engage in their academic work. Student involvement theory placed the student at the center of student success and claimed that external factors, such as campus facilities and course content, had less influence on a student's ability to succeed than student involvement. This theory stated that the more involved students were in their college education, the more likely they were to succeed (Astin, 1984).

Validation Model

Rendon (1994) developed a student retention model based on validation. This study found that there were distinct differences between traditional and non-traditional students. Traditional students were usually confident about being able to succeed in college, while non-traditional students lacked confidence. The study suggested that traditionally underserved students did not automatically grow up thinking they would attend college and, therefore,

initially lacked skills to navigate the university. The institution needed to transform these students and recognize that not all students learned or got involved in institutional life in the same way.

Thriving Model

Combining the interdisciplinary perspectives of psychological well-being and student retention in higher education, Schreiner (2010) explored the difference between those who thrived in college and those who simply survived. Schreiner said, “thriving college students not only are academically successful, they also experience a sense of community and a level of psychological well-being that contributes to their persistence to graduation and allows them to gain maximum benefit from being in college” (p. 4). Analyses showed that thriving was a construct comprised of five factors: (1) engaged learning, where students were engaged in their learning; (2) academic determination, where students invested effort to reach important educational goals; (3) positive perspective, where students were optimistic about their future and positive about their present choices; (4) diverse citizenship, where students were committed to making a meaningful difference in the world around them; and (5) social connectedness, where students connected in healthy ways with other people. Schreiner developed the Thriving Quotient as a tool to measure levels of thriving among college students. It was comprised of the five scales above and was a 25-item instrument with a 6-point Likert-scale with 1 indicating strongly disagree to 6 indicating strongly agree. A coefficient alpha of .91 made it a reliable and valid measure of psychosocial well-being.

Thriving provided a holistic view of student success. Research conducted in the United States, Canada, and Australia showed that students’ scores on the Thriving Quotient were

significantly predictive of outcomes on grade point average (GPA), intent to graduate, institutional fit, satisfaction, perception of tuition worth, and learning gains. Schreiner (2013) found that student characteristics at the time of entry into college were insignificant predictors of outcomes when considering thriving level. Demographic characteristics, like race and ethnicity, were not aspects of the student experience that could be changed, and these characteristics did not contribute any predictive value to student success outcomes when considering the experience of thriving. Furthermore, evidence suggested that there were many different pathways that varied depending on a student's ethnicity. For example, in terms of campus involvement, Schreiner found that involvement created the desire to thrive for Latino, Caucasian, and Asian American students, but this benefit was less evident for African American students. Therefore, the simplistic solution of more involvement to help all students thrive did not adequately reflect the important nuances in involvement that contributed most significantly to thriving for all students.

Astin's (1984) Theory of Involvement stated that a student's investment of physical and psychological energy on campus produced learning gains. However, more involvement did not effectively reflect the types of involvement that contributed most to thriving. Based on research on the contribution of campus involvement to student thriving across ethnic groups, such involvement benefited African American students least, while Latino students benefited most, which Schreiner (2010) also found with thriving. Furthermore, Caucasian and Asian American students also benefited from campus involvement, although, for these students, their involvement contributed most when accompanied by student-faculty interaction (Schreiner, et al., 2011). In addition, Hurtado, et al. (2007) felt that improving campus intergroup relations merited additional attention to achieve both diversity and excellence.

Schreiner (2013) said that creating a sense of community on campus was the single best way to help students thrive. This stemmed from a sense of belonging, which was a “feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together” (McMillan & Chavis, 1986, p. 9). Strayhorn (2019) saw that sense of belonging as a basic human need, vital for optimal human functioning and critical for students’ learning and development. The four key elements of this psychological sense of community were: membership (sense of belonging and validation), relationship (shared emotional connection), ownership (student voice and mattering to the institution), and partnership (interdependence and shared goals) (Schreiner, 2013). Membership was the foundation of a sense of community since it implied that one had a rightful place in that community (Strayhorn, 2019). Overall, “students with a positive perspective keep trying; even when progress is slow or difficult, they remain confident of their ability to achieve the final outcome and therefore persist in the face of challenges” (Schreiner, 2010, p. 7).

In 2010, thriving was a relatively new concept as it explained a holistic view of success beyond the academic indicators of college GPA, retention, and graduation. Each of the five factors of the Thriving Quotient questionnaire represented an element of academic, intrapersonal, or interpersonal thriving that Schreiner empirically demonstrated to be amendable to change within students (Schreiner, 2010). This measurement was of great interest but was purposely not selected for the current study as an initial examination of a sense of belonging was the researcher’s more immediate concern.

Cultural Perspective Models

Along with sociological and psychological perspectives as described in the above theories, the cultural perspective of student success assessed the unique challenges faced by underrepresented student groups. Prior to 2009, only 46% of Latinos who enrolled in college earned a bachelor's degree and only 10% of all Hispanic Americans ages 24-64 graduated from four-year institutions (Oseguera et al., 2009). Underrepresented students are often less likely to benefit from the learning environment of an institution due to their unique experiences and underlying institutional constructs (Astin, 1984). Furthermore, Bean's (1980) student attrition model and Tinto's (1975) integration model failed to recognize those cultural variables that affected the academic and social integration of nontraditional students at predominantly White institutions (Hurtado & Carter, 1997; Rendon, 1994), such as the development of positive cross-racial interactions that helped students achieve a higher sense of belonging on campus.

A Cultural Perspective on Student Departure

Kuh and Love (2000) developed the foundational culturally aware model of student success. One proposition emphasized the role of the individual in understanding and engaging with an institution's culture. Other propositions acknowledged that students had different cultural backgrounds (cultures of origin) and that colleges and universities had multiple, overlapping cultures. Thus, there existed a cultural distance, which accounted for many challenges when students went to college. Lastly, there were missing cultural connections that were necessary to succeed in college.

Culturally Engaging Campus Environment

Museus (2014) built upon the work of Kuh and Love (2000) to develop a quantifiable model of student success that was culturally and racially relevant. Museus' culturally engaging campus environment (CECE) model acknowledged that external influences (e.g., financial factors, employment, family influences) and precollege inputs (e.g., academic preparation, academic dispositions at the time of entry) shaped college success outcomes (e.g., learning, satisfaction, persistence, degree completion). However, the core of the model also emphasized that culturally engaging campus environments led to a greater sense of belonging, academic self-efficacy, academic motivation, intent to persist, academic performance, and, ultimately, an increased probability of success in college.

Other Cultural Perspectives

Hurtado and Carter (1997) examined how Latino students' background characteristics and college experiences in their first and second years contributed to their sense of belonging in their third year. On the other hand, aspects of campus environments either inhibited or fostered a sense of belonging for different racial-ethnic groups, such as overall campus racial climate, student perception of the transition to college, student levels of faculty interaction, attendance at external social-community and religious organizations, and discussions of course content with classmates outside class. Hurtado and Carter showed that students learned and developed socially during college as they managed relationships with individuals from different racial and ethnic backgrounds.

Underrepresented minority (URM) students were less likely to view hardships and doubts as signs that they did not belong when they understood that most students at various points in

their academic careers, regardless of URM status, experienced academic hardship and self-doubt (Walton & Cohen, 2007).

Williams (2012) studied factors that affected sense of belonging and the success of Black (African population) and Colored (of mixed race) students in South African Universities, examining campus culture/climate, institutional support structures, faculty, teaching, and learning. Williams found that higher education institutions did not have control over student attributes that influenced persistence, but there were institutional factors that played a role in feelings of sense of belonging. Student characteristics examined included: academic pressure; academic preparation; social, cultural, and language adjustment; and financial and socioeconomic challenges. Williams found that campus culture and climate had direct effects on the adjustment, sense of belonging, and academic self-concept of students, especially students of color and/or those from disadvantaged backgrounds.

A step towards positive cross-racial interactions and developing relationships with individuals from different racial and ethnic backgrounds impacted the classroom, for student reflection on their positionality and how they constructed their realities signified the importance of interaction (Sinha & Rasheed, 2018). Furthermore, institutions gave students an opportunity to re-orient their understanding of issues of race and connect positionality with anti-racist philosophy to face the reality of the current political climate (Rasheed, 2018). To address minority and first-generation students who felt that they did not belong on campus, institutions provided these students with strong advising services, including faculty and role models of color, along with culturally relevant pedagogy (Johnson, 2020).

Pre-College Characteristics

One indicator of college success was high school preparation, where those students who chose to take rigorous coursework and put in high quality effort in high school had more academic leverage once they enrolled in college. The quality of a student's high school curriculum was more important than standardized test scores (i.e., SAT and ACT) to predict the likelihood of college persistence. Students from the lowest socioeconomic backgrounds were less likely than their middle- to upper- income peers to attend a high school that provided adequate opportunities for a strong curriculum that included advanced math or honors or AP classes (Adelman, 2006).

Fischer (2007) explored racial and ethnic differences among students as they adjusted to college and the consequences of different adjustment strategies on college outcomes. Data came from the National Longitudinal Survey of Freshman (NLSF). The sample was approximately 4,000 first-time students entering selective colleges and universities in 1999. Twenty-eight institutions participated with 4,573 students. The study yielded an 85% response rate with equal numbers of African American, Hispanic, Asian, and White students participating. Fischer found that satisfaction with college was most related to pre-college characteristics for Asian and African American students. Asian students with higher high school GPAs were more satisfied with college, and African American students who rated the quality of their high school higher expressed greater satisfaction with college. There was a link between academic preparation and retention in college for Hispanic students since having a strong high school background reduced the likelihood of dropping out of college. Finally, the researcher examined how pre-college characteristics, social and academic adjustment, and the college environment affected the

students' decision to leave college. For all students, Fischer found that having friends on campus helped with adjusting to college and provided greater satisfaction with the college experience, which reduced the likelihood of leaving college prior to degree completion. Also, Hurtado and Carter (1997) found that even when examining students' GPA, academic performance did not enhance or diminish Latino students' sense of affiliation with college.

Cultural Summary

Overall, there existed a cultural distance between the students and the institution, and this distance needed to be recognized and accounted for by the institution. A culturally engaged campus environment and a culturally engaged college culture led to a greater sense of belonging and an increased probability of success (Kuh and Love, 2000; Museus, 2014; William 2012). Students learned and developed socially during college as they managed relationships with individuals from different racial and ethnic backgrounds and this step towards cross-racial interactions positively impacted the students' positionality and reality (Hurtado and Carter, 1997; Sinha & Rasheed, 2018). Having friends on campus with various cultural backgrounds, along with strong advising services, provided greater satisfaction with the college experience, especially for those students from the lowest socioeconomic backgrounds (Adelman, 2006; Fischer, 2007; Hurtado and Carter, 1997; Johnson, 2020).

Student Success in Relation to Retention

Since the 1970's, higher education administrators studied student success and retention. At that time, it was an important concern, as well as an economic interest, since in higher education it cost less to retain than to recruit new students. Investing resources to prevent dropping out was more cost effective than applying the same resources to recruitment (Astin,

1975). Cuseo (2010) estimated that retention initiatives designed to manage student enrollment were three to five times more cost effective than recruitment efforts. Based on the 2020 Cost of Recruiting an Undergraduate Student report, the median cost of recruiting a student is \$2,114 (RNL, 2020). In essence, a student retained at an institution for four years generated the same income as four new students who left after one year (Cuseo, 2010). According to the latest research by the National Student Clearinghouse Research Center for 2021, spring undergraduate enrollment was down 5.9% compared to the same time last year. Therefore, declining enrollment, along with the cost of recruiting students, made the retention of existing students important for economic success (NSC, 2021).

According to the [National Center for Education Statistics](#) (NCES, 2021), retention rates measured the percentage of first-time undergraduate students who returned to the same institution the following fall, and graduation rates measured the percentage of first-time undergraduate students who completed their program at the same institution within a specified period of time. Data from Fall 2017 from the NCES showed that the retention rate for private nonprofit four-year institutions was 81% overall and ranged from 65% at institutions with an open admissions policy to 97% at institutions with acceptance rates of less than 25%. Based on a study by Ruffalo Noel Levitz (RNL) (2017) of 79 four-year private institutions and 27 four-year public institutions across the United States, 70% of four-year private institutions and 74% of four-year public institutions offered student success coaching. With that, 76% of the private institutions and 90% of the public institutions rated the programs as very or somewhat effective (RNL, 2017). Overall, student success and retention occurred when a student had strong background characteristics, enough academic preparation, and positive in-college experiences (Astin, 1984; Pascarella & Terenzini, 1980; Tinto, 1993).

Mentoring and Advisor Support

Mentoring increased one's likelihood of career success, so it was essential to the personal and professional development of students, faculty, researchers, and staff in higher education (Vance, 2016). While increasing college access and enrollment was an important first step, mentoring addressed the major concern of the retention of those students. An article by the Brookings Institute (2019) discussed how improving college student achievement and graduation rates became a major concern. In the U.S., only about a third of college students completed their four-year degree within four years at public institutions, and about half did so at private nonprofits. Results from studies suggested that more or better faculty advising might be a promising avenue to improve these numbers (Startz, 2019). Chambliss (2014) noted that colleges were under increasing pressure to do more with less and to use reliable, powerful, affordable strategies to keep students engaged on campus.

According to Mentoring.org (2021), there were four key ways mentors helped students in their careers: goal setting, networking, broadening the scope of knowledge of job-seeking and interview skills, and job retention. Hence, through proactive advising approaches, advisors specifically incorporated strategies that extended beyond degree planning to enhance social and academic integration. Mandatory advising encouraged students to participate in early degree planning, so that they did not delay the creation of long-term views toward their goals. Furthermore, students tended to be more motivated after advisement, which opened a pathway to ask for further assistance (Donaldson et al., 2016).

Regular faculty-student contact was the most important factor in student involvement and motivation because it provided students with the support needed to get through tough times and

keep working toward academic success. Academic advising engaged students beyond their own views by acknowledging individual characteristics and motivations as students entered and exited from a college (Tinto, 2012). As shown in research by Heisserer & Paratte (2002), recommendations for college and university advisors included the need for a comprehensive plan that addressed aggressive advising, adequate faculty and advisor training, web supports for targeted students, development of comprehensive databases for managing student data, and ongoing research to evaluate intervention effectiveness.

Advising appeared to be most useful when combined with other retention practices. When paired with on track indicators, academic advising was especially pivotal in retaining at-risk student populations (Hanover, 2018). At-risk students and their retention have had a substantial impact on institutions of higher education. Academic advisors acted as agents of student relationship management by strengthening the connection between students and their institutions to affect college retention. Advisors instilled a sense of belonging, pride, and mattering in the participants. Furthermore, academic advisors created strong and ongoing relationships with students and generated the opportunity to bind the students to the institution with someone who cared deeply about student success (Vianden, 2016).

Institutions focused on enhancing student retention and graduation, making sure that students not only got in the door of higher education, but also successfully stayed there through degree completion. Institutional actions, such as providing support (tutoring, advising, mentoring), connecting academic support with everyday learning, and engaging students in learning all enhanced retention and graduation (Tinto, 2004). Creating positive social

communities was vital for improving a student's institutional commitment and decreasing the likelihood of a student's dropping out (Burke, 2019).

Academic advising, along with mentorship, were areas of interest for institutions examining retention, since they led to a more resilient student who felt better connected to the institution. Academic advising strategies utilized in higher education played an important role in the student retention process, as well as in the student and academic advisor relationship and personal relationships (Braxton et al., 2000; Kelleher, 2015). Students who participated in honors programs, intrusive advising (pro-active intervention), and living-learning communities (a group of students who share similar interests or majors) within residence halls had higher retention rates and higher overall GPAs than their campus peers who did not. To encourage and support student success, universities implemented mentoring (Bernier et al., 2005; Braxton et al., 2000; Salinitri, 2005). Institutions needed to simultaneously address students' academic and social systems because the process of creating a strong relationship between an academic advisor and student success increased retention (Burke, 2019; McGill, 2016). When linking a student with an advisor, students achieved greater academic success when linked with a mentor of contrasting interpersonal orientation (Freeman et al., 2007; Bernier et al., 2005). An imperative aspect of college retention recognized academic advising; however, due to its complex process, institutional leadership, faculty, and academic advisors overlooked it themselves (McGill, 2016; Reader, 2018).

Sense of Belonging and Connectedness

Sense of belonging was an important aspect when considering retention rates among higher education students because students associated advisor support with a stronger sense of

belonging and academic self-concept (Curtin et al., 2013). To provide students with more sustained and personalized advising, colleges worked to deliver their services more strategically. This means identifying high-need students and offering them intensive advising when they entered college and providing “just-in-time” advising to low-need students when they reached critical milestones in their college pathway. Sense of belonging continued to be associated with academic motivation in college-level students. A combination of both academic and interpersonal factors promoted sense of belonging, and, ultimately, academic motivation. These factors included the students' perceptions of their professors as concerned about their academic success, and general social acceptance on campus (Karp & Stacy, 2013).

Academic advisors helped students succeed by providing access to important information and guidance about courses and majors. Beyond informing students and better preparing them to grow at the institution, academic advising also gave students a personal connection to the college or university (Hanover, 2018). Abraham Maslow’s Hierarchy of Needs ranked a sense of belonging third, behind the importance of basic physiological needs and safety. Belongingness referred to a human emotional need for interpersonal relationships, affiliation, connectedness, and being part of a group (Maslow, 1943).

Strayhorn (2019) defined sense of belonging as a basic human need and suggested that it was related to students’ perceived social support on campus, feelings of connectedness, and feelings of value and acceptance by others. There was a positive association between a sense of belonging and the ability to manage academic adjustment, grades, self-rated change in the ability to conduct research, and perceptions of the relevance of coursework in the first year of college (Hurtado, et al., 2007). In the same manner, “in terms of college, sense of belonging refers to

students' perceived social support on campus, a feeling or sensation of connectedness, and the experience of mattering or feeling cared about, accepted, respected, valued by, and important to the campus community or others on campus such as faculty, staff, and peers" (Strayhorn, 2019, p. 3).

Taking into consideration Astin's Theory of Student Involvement (1984), a highly involved student interacted frequently with faculty and other students, which led to building a connection. Thus, student involvement fostered new relationships and connectedness among students, along with the desire to become even more involved. Institutional impacts, such as curriculum, pedagogy, and resources, also played a role in the educational experience. Connectedness and integration were essential elements of student satisfaction, academic success, academic motivation, and retention (Freeman et al., 2007; Hanover, 2014; Jorgenson et al., 2018). Feeling positive about the learning experience in classes, feeling engaged in these classes, and the perception of support and value on campus all played a role in sense of belonging (Hurtado et al., 2007; Strayhorn 2019; Wilson et al., 2015).

Institution-wide improvement of social practices was essential for driving up retention among all students, and academic support, student engagement, and faculty interaction in the classroom helped keep students on track to graduate (Tinto, 2004). Understanding the contextual characteristics that promoted students' sense of belonging had the potential to address widespread concern about high attrition rates among college students, which tended to be highest during the freshman year (Tinto, 2012). At four-year institutions, a better sense of belonging among students led to higher rates of personal and academic successes later in their college experiences. Students at four-year institutions who felt a stronger sense of belonging were more

likely to utilize campus services, such as student advising and financial aid services, than those at two-year colleges. Institutions made efforts and provided strong services to ensure that all students are able to integrate on campus (Johnson, 2020).

Measuring Sense of Belonging

Within higher education, researchers saw there was a link between the construct of belongingness and academic engagement; this link contributed to academic success. Instead of developing new instruments for this study, this researcher searched for existing instruments that would be most appropriate for the study. An instrument by Yorke (2016) measured belongingness via student perceptions of three subscales: belongingness, academic engagement, and self-confidence. Thirteen varied institutions in England piloted the survey with a six-item subscale intended to measure sense of belonging in higher education. However, the post-secondary experience in England was different from the context of the other instruments. Additionally, there were other instruments, such as the Psychological Sense of School Membership, which was modified for use in university settings, but they were not meant particularly for adult learners, and also did not meet the needs of this study (Goodenow, 1993).

Researchers developed several instruments to study sense of belonging in higher education: the Sense of Belonging Scale (26 items; Hoffman et al., 2002) and the University Belonging Questionnaire (24 items; Slaten et al., 2018). Hoffman, Richmond, Morrow, and Salomone (2002) designed and tested an instrument intended to empirically measure “sense of belonging” in postsecondary institutions. The researchers examined whether there was an impact of the freshman seminar as a learning community or a stand-alone seminar on students’ sense of belonging. Students in the learning communities scored significantly better on all five factors of

the Sense of Belonging instrument. The researchers found that sense of belonging stemmed from student perceptions of valued involvement, which supportive peer relationships and compassionate faculty predicted, so Slaten (2018) developed the University Belonging Questionnaire (UBQ) as an extension of his conceptual research on sense of belonging at the post-secondary level (Slaten et al., 2016). This addressed the lack of instrumentation specifically designed for use among post-secondary students and he designed a scale that accurately measured the construct of university belonging. This researcher found this instrument most appropriate for this study.

Engagement Activities

Many of the theories surrounding student retention revolved around an academic system and a social system (Spady, 1970; Tinto, 1975, 1993). The models all suggested that students' growth mindset characteristics and interactions with the academic and social systems within their institutions influenced their decisions to persist. Students' engagement during their higher education experience was extremely important for retention. Furthermore, engagement created a higher level of institutional commitment, which, in turn, increased students' likelihood of persistence (Burke, 2019).

Strategies provided by scholars to improve college completion rates revolved around the idea of persistent student engagement at the beginning of a student's academic experience, which continued until successful completion (Tinto, 2012). A lack of academic preparedness and academic engagement also factored into student success (Oseguera et al., 2009). To help students develop skills to facilitate academic success, programs provided students with academic advising that targeted goal-setting and development of high self-efficacy beliefs. Students with more

confidence were more likely to persist in college, but they needed to have the ability to acquire the skills to be academically successful and to have the belief that they could perform well academically (Hseih, et al., 2007).

Bandura (1986) defined self-efficacy as a “judgment of one’s capability to accomplish a certain level of performance” (p.391). These positive judgments encouraged active engagement in activities that contributed to further growth of competencies, as well as reinforced those judgments. Self-efficacy impacted motivation by influencing the goals people set for themselves, the effort put into meeting those goals, and how long they persisted when faced with adversity. Therefore, academic self-efficacy beliefs were judgments related to academic performance and the ability to accomplish educational goals (Bandura, 1993). Paul and Fitzpatrick (2015) identified how academic advisors’ competence and caring behaviors were underlying characteristics that helped to build trust, influence students’ satisfaction, and create a successful academic experience.

For engagement, high impact practices were those that encouraged students to engage deeply in their own learning. Kuh (2008) linked student satisfaction with students’ education and persistence toward degree completion. High-impact practices were activities that had a positive impact on student outcomes due to students who participated in the following: engagement with diverse others, intentional interactions and relationships with faculty and peers, and receiving formal feedback on performance (Kuh, 2008). According to Himes (2014), the strategies that engaged students in reflective educational goals included clarifying expectations regarding higher education and encouraging high levels of self-awareness and responsibility. An emphasis on skill development, which included decision making, critical thinking, and the ability to take

ownership and responsibility for one's actions, characterized developmental and learning-centered skills (Himes, 2014).

According to Hurtado and Carter (1997), engaged students addressed time management and schedules. Soden (2017) found that poor time management could be a reason why a student withdrew from college. In addition, students' perceptions of effective advising included personalized guidance, supportive relationships, and interactive advising meetings. Regarding advising, students who were most successful developed a relationship with an academic advisor who helped the student navigate the social and academic rules of college. The more students engaged academically and socially with people on a college campus, the more likely they were to stay and graduate from college (Tinto, 2012).

Important aspects of academic advisement included developing means of communication and enhancement of students' critical thinking skills (Paul & Fitzpatrick, 2015). Personalized advisement made students more aware of their own priorities, talents, values, and educational purpose (Himes, 2014). Therefore, activities that focused on managing time, having a growth mindset, and setting goals could be beneficial to retain students and provided the support needed to lead to positive engagement.

First Year Student Studies

Early research on student retention focused on the importance of student involvement in the first year of college (Astin, 1975; Pascarella & Terenzini, 1980). As a result, many early retention intervention programs focused on the transition into college and retention for first-year students, which caused the development of programs that included mentoring, first-year seminars, orientation, tutoring, and advisement (Salinitri, 2005). GPA, social development,

graduation rates, and retention rates of students participating in mentoring programs were higher than those of non-mentored students. Furthermore, advisors' support and guidance contributed to the students' confidence in their ability to earn a degree at the institution and highlighted the positive impact of the advisor-student relationship (Miller, 2010; Rhodes, 2008; Salintri, 2005). Increasingly, universities adopted remediation strategies to lower the dropout risk, with studies showing that between 28% and 40% of all first-time undergraduate students enrolled in at least one remedial course during their college career. The most effective remediation strategies included screening programs to sort incoming students into appropriate course levels and hands-on support programs, including summer bridge programs (Bautsch, 2013). Orientation programs, optional introductory learning, and study skills courses (either for-credit or non-credit), and mentoring or coaching programs were some of many approaches used for improving first-year retention (Hanover, 2014).

Studies also examined first-year students' perceptions of mentorship programs, which indicated that students desired mentorship, but the perception of mentorship varied from relationships with friends or family to academic support. There was also a higher rating of perception of mentoring effectiveness among mentors than what the mentees perceived (Coombs-Ephraim, 2016; Rayford, 2014). Additionally, Soden (2017) conducted a qualitative study to gather student and academic advisors' perceptions of effective advising strategies at a private, faith-based university-allied health branch campus in the Midwest. Themes emerged relating to developing relationships, personalized advising sessions, and a consistent campus. Findings from the study indicated that progressive academic advisement strategies had a positive impact on student retention.

According to Hanover (2014), the College Board argued that to have a positive impact on persistence, students in their first year of college needed interactions with faculty. Trent University in Canada improved its first-year retention rate by 3.5% between 2007 and 2011 following implementation of a strategic plan that emphasized student-centered education, redesigned scholarship and bursary programs, improved student support programs, and enhanced student organizations and activities. Orientation programs also played a major role in the success of first-year student retention, along with optional introductory learning and study skills courses. For example, the University of Wisconsin-Green Bay implemented first-year seminars for freshman students, which improved first to second year retention by almost 10% among seminar participants compared to non-participants (Hanover, 2014).

Managing the academic environment was important for students to feel that they were a part of campus life in their first year. All students in the first year of college linked academic adjustment and sense of belonging (Hurtado, et al., 2007). When it came to first generation students, Stephens, et al. (2014) found that using a one-hour intervention at the beginning of college about how first-generation students' diverse backgrounds shaped what they experienced in college provided students with critical insight. Leaders told students that individual's different backgrounds mattered and people with backgrounds like theirs succeeded when they used the right kinds of tools and strategies. Understanding how students' backgrounds matter was important because first-generation students tended to experience a difficult transition to college and faced background-specific obstacles that challenged their opportunity to succeed. (Stephens et al., 2014). The one-hour intervention reduced the social class achievement gap among first-generation and continuing-generation college students by 63% at the end of their first year and

improved first-generation students' college transition on numerous psycho-social outcomes (e.g., psychological adjustment and academic and social engagement).

Retention Programs

In response to a decline in degree completion rates, some institutions implemented programs to improve retention rates. Strategically targeting first-year students, students in courses with high failure rates, and academically at-risk students decreased the dropout rate among these populations (Hanover, 2018). Based on the study by RNL in 2017, roughly 82% of private institutions and 85% of public institutions had programs designed specifically for students at risk academically. With that, 81% of private institutions and 61% of public institutions rated their programs as very or somewhat effective. Furthermore, 59% of public institutions and 81% of private institutions focused financial aid and scholarships on retention. With that, 81% of private institutions and 68% of public institutions rated the programs as very or somewhat effective (RNL, 2017).

An example of one program within the City University of New York (CUNY) system was the Accelerated Study in Associate Programs (ASAP), which started in 2007 with funding from the Office of the Mayor's Center for Economic Opportunity. The goal of ASAP was to improve completion rates by providing services, which included meeting regularly with an advisor and enrolling in required developmental courses. According to CUNY.edu, last year nine CUNY colleges offered ASAP, which continue to provide students with the academic, social, and financial support they needed to graduate with an associate degree in no more than three years. The graduation rate for ASAP students was more than three times the national three-year graduation rate of 16% for urban community colleges, as per IPEDS (2021). Studies found that

ASAP students earned an associate degree two times more quickly than non-ASAP students (in roughly three years). Furthermore, ASAP students referred to developmental education were more likely to graduate than other CUNY students referred to developmental education (Cormier, et al., 2019). CUNY expanded the program and increased enrollment of ASAP from 4,300 in 2014 to over 25,000 in 2018. Cormier, et al. (2019) found that to expand, CUNY institutions needed to streamline the process of student recruitment of ASAP students, in coordination with admission practices, because the institutional functions of recruitment, advisement, registration, and training were all very important factors, with training being the most important. One thing that Bronx Community College focused on for this expansion was developing a needs-based advising model that enabled advisors to handle larger caseloads. They also hired staff specifically for ASAP, including recruiters, associate directors, and peer mentors. CUNY's ASAP program was just one example of an initiative implemented to improve graduation rates. It showed what the institution needed to focus on to build capacity for achieving scaling goals while maintaining program quality.

Advising was most useful when combined with other retention practices. When paired with on track indicators, academic advising was especially pivotal in retaining at-risk student populations. By flagging students with a known drop out risk, such as undeclared majors, the school used academic advising to support students through long-term course planning and mentorship. As an example, the University of North Carolina Greensboro created an advising team to work with students who had not yet declared a major after data revealed these students dropped out in higher numbers. The University provided undeclared students with more frequent and targeted advising and mentoring support to help them declare a major within their first year

and become strategic about long-term course planning. As a result, between 2011 and 2014, retention among undeclared students increased from 76% to 80% (Hanover, 2018).

Conclusion

This literature review demonstrated a positive relationship between academic advising and improved academic performance. However, there were gaps in programs' efficiency in relation to sense of belonging as shown by a discrete student success program. The researcher examined how an intervention program and its specific components related to indicators of student success to gain a deeper understanding of the impacts of perception and retention on enhancing student success. The researcher found intertwined themes of retention trends, academic advising, and sense of belonging regarding how they impact student success. Students' campus experience had direct effects on sense of belonging, especially for students of color and/or those from disadvantaged backgrounds, but interactions that were cross-racial helped students achieve a higher sense of belonging on campus.

The results of this study may contribute to the body of knowledge regarding mentoring and assist in understanding how the fidelity of a program can explain differences among outcomes of mentoring programs across the nation. Furthermore, this study can provide enhancement to how a student success program can relate to feelings of sense of belonging. An opportunity existed to evaluate the effectiveness of a discrete student success program through sense of belonging as a gateway to retaining students.

Chapter Three: Research Methodology

Introduction

The purpose of this chapter is to present the research rationale for the planned design to examine the effect of a discrete student success program through the lens of sense of belonging and to evaluate that program based on factors beyond academics and graduation rates. In this chapter, the researcher discussed the instrument chosen to elicit data, as well as the selection of participants and the procedure for data collection. The prior literature review indicated the need for a comprehensive plan to address aggressive advising and, when paired with on track indicators, the essentiality of academic advising to retain at-risk students (Heisserer & Paratte, 2002; Hanover, 2018).

Research Design

The researcher assessed previous research related to the topic to determine the method most appropriate for this study. One method the researcher considered was action research, where participants were collaborators and worked to make conditions better (Saldaña, J., & Omasta, M., 2017). Action research emphasized the researcher's active collaboration with study participants (Yin, 2016). The results of this study will allow departments to work together to gain a better understanding of student success and retention, to diagnose the sources of student success and retention, and to develop an action plan to address the situation.

The researcher used a mixed methods action research case study to examine how the ACE program and its specific components may enhance student success and students' associated feelings of a sense of belonging. Theoretically, this type of qualitative research represented the views and perceptions of the participants in the study and data analysis associated with the

research analysis capitalized on how humans naturally think (Saldaña, J., & Omasta, M., 2017; Yin, 2016). According to Yin (2016), qualitative research first involved studying the meaning of people's lives, under real-world conditions. Multiple realities existed and the interpretations of it changed over time, which qualitative research looked to understand (Merriam, 2016).

Creswell (2013) said that the case study is a type of qualitative research that may be an object of study, as well as a product of inquiry. It entailed an intensive description and analysis of a phenomenon or social unit, such as, an individual, group, institution, or community, and studied a phenomenon (or "case") in its real-world context (Merriam, 2016; Yin, 2016). As described by Merriam and Tisdell (2016), the approach aimed to analyze the phenomenon in depth. The case study provided the researcher and the audience opportunities to closely examine the human condition and to focus on an individual's life story (Saldaña, J., & Omasta, M., 2017). A case study analyzed one specific program selected because it was typical, unique, or highly successful and was a bounded, integrated system (Stake, 1995, Merriam, 1998). The subjects of this research participated in a study bounded by their involvement in the student success program at the study site and the study produced an in-depth investigation of a formalized student success program at an institution. This case study will be instrumental in not only representing a specific situation, but also in informing other situations or cases.

Creswell & Clark (2018) said that the intent of mixed methods research was to portray the integration of the qualitative and the quantitative data in a study. They said that three different types of mixed method approaches existed, which included convergent, explanatory, and exploratory. In the convergent design, the researcher collected the qualitative and quantitative data at the same time and compared them. In the explanatory sequential design, the

researcher first collected the quantitative data, and then, based on the results, the researcher collected qualitative data to explain the quantitative data. In the exploratory sequential design, qualitative data was the first phase. When collected and analyzed, the data led to quantitative data, which provided support for the qualitative data (Creswell & Clark, 2018). This researcher utilized an explanatory sequential mixed method design where quantitative data collected. Then this researcher explained the quantitative results through in-depth qualitative data. This researcher explored improved student outcomes that are beyond the scholarship support achieved because of the specific student success program.

Theoretical Rationale for Research and Methodology

Epistemology is the relationship between the researcher and knowledge (Jones et al., 2014). As shown in Smith (1999/2012), objects of research had a voice and there was a relationship between the researcher's knowledge and research. According to Saldaña and Omasta (2017), interpretation was the personal, subjective way people perceived and responded to their own social experiences. Furthermore, as these researchers conducted research, they inferred the roles or characteristics the participants' and the researchers' status had to influence and affect relationships.

Constructivism influenced this researcher since the researcher's key philosophical assumption for this research was that individuals constructed reality and interacted with their social worlds (Merriam, 1998). Merriam (1998) said, "reality is not an objective entity; rather, there are multiple interpretations of reality" (p. 22); hence, the researcher analyzed the perspectives of both the participants and the mentors to examine how the ACE program and its specific components may enhance student success and students' associated feelings of a sense of

belonging. With qualitative research, there are multiple interpretations that change over time.

The goal of this research was to understand those interpretations at a specific point in time and in a specific context.

Research Questions

1. What are the ACE participants' perceptions of the student success program in terms of supporting their efforts to develop a sense of belonging within the institution?
2. What characteristics of the ACE program influence the students' sense of belonging?
3. What are the ACE participants' perception of student success barriers that adversely affected their sense-of-belonging beliefs?

Setting and Site Access

Setting

The student success program began in Fall 2019 at a private four-year college in the eastern region of the United States as a student success initiative to provide free academic support to undergraduate students who were at risk of losing their scholarship due to falling below the minimum required cumulative GPA after their first year at the institution.

Administration implemented the program to improve student persistence, not as an intervention study, with three components: an online academic success course, engagement activities, and an academic coach. Students who completed the program from 2019 through 2021 had an opportunity to maintain their scholarship through participation and had the potential to increase their GPA. As the study site has now implemented this student success initiative over time, any

positive findings from this research may be beneficial to other institutions and may add to the overall student success literature.

Currently, qualified students are those who, at the end of their first two semesters, do not have the requisite GPA to keep their merit scholarship. The university offers students participation in the program to retain their scholarship. The program consists of those students with a GPA of less than or equal to 2.2. In prior years, approximately 200 students qualified for the program across two campuses. Of this population, the university expected roughly 120 students to complete the program.

Access

Access is the researcher's ability and permission to observe a specific site (Saldaña & Omasta, 2017). A convenience sample will be used to obtain and access information since this program runs at the researcher's previous university. The student success program manager agreed to handle initial outreach to the students via email and to invite students to join the ACE program based on their GPA and current scholarship information. The student success manager informed the students about the program to ascertain their desire to participate. The researcher had no initial connection to the students. In terms of bias, the researcher provides a self-reflection in chapter five about how her background shaped her interpretation of the findings because maintaining the integrity of the program will be of the utmost importance. Given that most of the researcher's career has been in finance and budget, by moving to the academic side, researching the ACE program allowed for insight into factors, other than monetary, that can make the student experience better.

Participants

Participants were both those students invited to participate in the student success program and the mentors in the program. According to Smith (1999/2012), the researcher should hear the voices of the researched. So, the researcher used qualitative inquiry to seek to understand the meaning of the phenomenon from the perspectives of the participants. The researcher used a purposeful, convenience sample. Convenience sampling is when the researcher selected participants because of easy access. The sample was also purposeful because the researcher deliberately selected students since they were participants in the program under investigation due to their position, experience, and/or identity markers.

For this study, there were 15 participants: 5 advisors/mentors and 10 ACE participants/students, with two participants per selected advisor. Based on Yin (2016) the researcher planned to provide an in-depth examination based on interviews with a small number of individuals to better understand and analyze the problem. Students were either sophomores or juniors, as this program is only open to those who did not meet a minimum GPA requirement as required by their scholarship after their first year of enrollment. The researcher considered diversity of gender, age, race/ethnicity, and major when she developed the sample from the pool of interested students.

According to Paul and Fitzpatrick (2015), academic advisors' knowledge of degree requirements, as well as their approachability, produced strong relationships associated with advising and student satisfaction. To obtain high levels of positive interactions, student perceived advisor behavior should align with students' developmental expectations. Furthermore, there must be clear expectations of the advising process between academic advisors and students (Anderson et al., 2014). Per research, academic advisors needed to understand the advising

process, including knowledge of those personal characteristics which caused student failure and success. Understanding the differences between students allowed the advisor to build a more supportive and success-oriented environment for the advisee (Donaldson et al., 2016). For this reason, the researcher analyzed both the advisor and the selected participants assigned to that advisor to understand better their advising relationship and both the students' and the advisors' expectations.

Instrumentation

Due to the mixed methods approach to this research, the researcher used both semi-structured interviews and a belonging questionnaire to examine how the ACE program and its specific components may enhance student success and students' associated feelings of a sense of belonging. This combination allowed for a multi-dimensional process of gathering data.

Semi-structured Interviews

Saldaña and Omasta (2017) said semi-structured interviews had a degree of structure but offered researchers' latitude to adjust course as needed based on responses. Some studies of college students used semi-structured interviews to gather reliable data (Soden, 2017; Miller, 2010). According to Yin (2016), semi-structured interviews promoted open conversations about evolving ideas, perceptions, and reactions to the researcher's questions.

The researcher explored the individual experiences of students and advisors through guided, semi-structured interview questions in a conversational mode, rather than through a tightly scripted format. Questions allowed the students and the advisors to express their own perceptions of the ACE program and its' associated advising techniques in their own words, not the researcher's words.

The researcher obtained permission to use and adapt a protocol to guide the individual student and advisor interviews. A doctoral student developed the protocol and used it in a study that examined student and academic advisors' perceptions of advisement techniques to determine the connection between academic advising strategies and student retention (Soden, 2017). The dissertation was a qualitative study designed to gather perceptions from higher education students and academic advisors to understand the strengths and barriers of an advising program at a private faith-based university branch campus. The population used by Soden (2017) included two focus groups of 11 students and 3 academic advisors. Soden developed two different instruments, one for students and one for advisors. The researcher chose this interview protocol since Soden used the student interview protocol questions to discover students' perceptions of how effective advising strategies promoted retention. Furthermore, the advisors' interview protocol questions led Soden to interpretations of actions advisors considered strategic to assist a student to follow a successful academic career path.

Soden (2017) established validity by piloting the interview and focus group questions. Consistent administration ensured a valid pilot. Furthermore, member checking, clarifying bias, and triangulation further addressed reliability and validity.

Sense of Belonging Survey

The researcher used the University Belonging Questionnaire (UBQ) developed by Slaten, et al. (2018) as a second instrument. As developed, this instrument consisted of a list of 40 items that asked about a student's relationship to the university and their student- to- student relationship experiences. Respondents indicated the degree each statement was true for their own experience, based on a 4-point-Likert-type scale ranging from 1 (strongly disagree) to 4 (strongly agree). Slaten, et al. (2018) conducted an exploratory factor analysis and, based on the

testing, eliminated 16 items from the instrument, leaving 24 items on three sub-scales (university affiliation, university support and acceptance, and faculty and staff relations). The researchers looked for correlations with other measures of university belonging, general belonging, social support, social connectedness, and loneliness to examine the convergent, divergent, and incremental validity of the UBQ. Slaten, et al. (2018) found that the internal reliability of the UBQ instrument both for total score and for each subscale was “ $\alpha = .93$ for the total score and a $\alpha = .89$ for university affiliation, a $\alpha = .85$ for university support and acceptance, and a $\alpha = .88$ for faculty and staff relations” (p. 644). Results provided evidence of the construct, divergent, and incremental validity of the UBQ and its subscales (Slaten, et al., 2018).

The researcher chose the UBQ instrument for the current study for several reasons. First, it appeared not to need any modifications to apply to a student population in a formalized mentorship program for student success and most items accurately and directly addressed the research questions. Secondly, the UBQ instrument subscales aligned with sense of belonging as a university-level concept. Finally, the proposed study sought to explore sense of belonging in ACE program participants, a population that is on the verge of losing their scholarship due to not meeting minimum GPA scholarship requirements.

Trustworthiness

Creswell (2014) stated that in qualitative literature, areas addressing validity were authenticity, credibility, and trustworthiness, which included triangulation as one of the strategies. Triangulation involved considering data from at least three different sources to help ensure dimension (Saldaña & Omasta, 2017). In addition to triangulation, other approaches the researcher used to address reliability and validity included member checking and clarifying bias.

Member checking involved taking the final report or themes back to the participants to ensure that they agreed with the interpretation.

To establish triangulation for this study, the researcher used a questionnaire, individual interviews, and archival documentation. The interviews included the participants in the program and the ACE coaches. Yin (2016) said that one of the benefits of using documents as a data source was that the documents already existed in the situation and were not dependent on further cooperation from participants. Documents confirmed other data and exposed additional perspectives. Furthermore, they assisted researchers in telling a story and uncovered values and beliefs (Jones et al., 2014). As part of the existing program, there is a syllabus for the program, along with prior surveys and questionnaires. The researcher reviewed and analyzed this documentation as part of the data collection.

Ethical Considerations

Ethical issues arose in past qualitative studies, so researchers were aware of that possibility (Creswell, 2014). The researcher will explain the purpose of the study and how the findings might impact the participant to establish trust. The researcher protected the participants in this study and assured them of confidentiality and privacy guidelines. The researcher kept any audiotapes and field notes used during the interviews in a secure, locked file cabinet in the researcher's office.

Procedure

The researcher sought approval to conduct the study from the study site, and the researcher's prior employer compiled the necessary documents and information for submission to begin the research once IRB approval was obtained. The researcher contacted the liaison (the

Student Success Program Manager) and informed the manager of the obtained approvals from the provost. The liaison generated a list of names of students who met the given criteria for the research and sent an email to the students indicating that they should contact the researcher directly if they are interested in participating in the study. The researcher advised the potential participants of the confidential status if they choose to participate and she gave each participant an informed consent form to complete. The consent process allowed each participant to gain information about the length of the interview, how the results of the study will be used, the purpose of the study, and any risks or benefits of which they would need to be aware. The researcher also allowed time for questions during this process.

Conclusion

This chapter discussed the methodology that the researcher used for this study. The researcher used a mixed methods action research case study to examine how the ACE program and its specific components enhanced student success and students' associated feelings of a sense of belonging. The researcher utilized semi-structured interviews and the University Belonging Questionnaire to gather data (Soden, 2017; Slaten, et al., 2018). The researcher used an explanatory sequential mixed method design and explained the quantitative results through in-depth qualitative data. The researcher explored any improved student outcomes that were beyond the scholarship support achieved because of the specific student success program. This chapter outlined the study design, the setting, the sample, instrumentation, trustworthiness, and the role of the researcher in this study. The following chapter will discuss data collection and key findings.

Chapter Four: Results

Introduction

The researcher designed this mixed methods case study to examine how the ACE program and its specific components may enhance student success and students' associated feelings of a sense of belonging. The findings from the University Belonging Questionnaire (UBQ), along with student and coach interviews, will be discussed in this chapter. The researcher will report the data graphically and textually. The researcher will report the emerging themes from the quantitative and qualitative data analysis at the end of the section, along with how each instrumentation tied to the research questions.

Participants were a sample of students in the student success program and a sample of coaches for the program, where some students were tied to the coach interviewed. The researcher used the study to examine ACE student and ACE coach experiences in the student success program; the researcher then analyzed the responses. This chapter presents the themes that emerged from an analysis of the interviews and the UBQ based on the research methodology described in Chapter Three. The primary research questions guiding this study were:

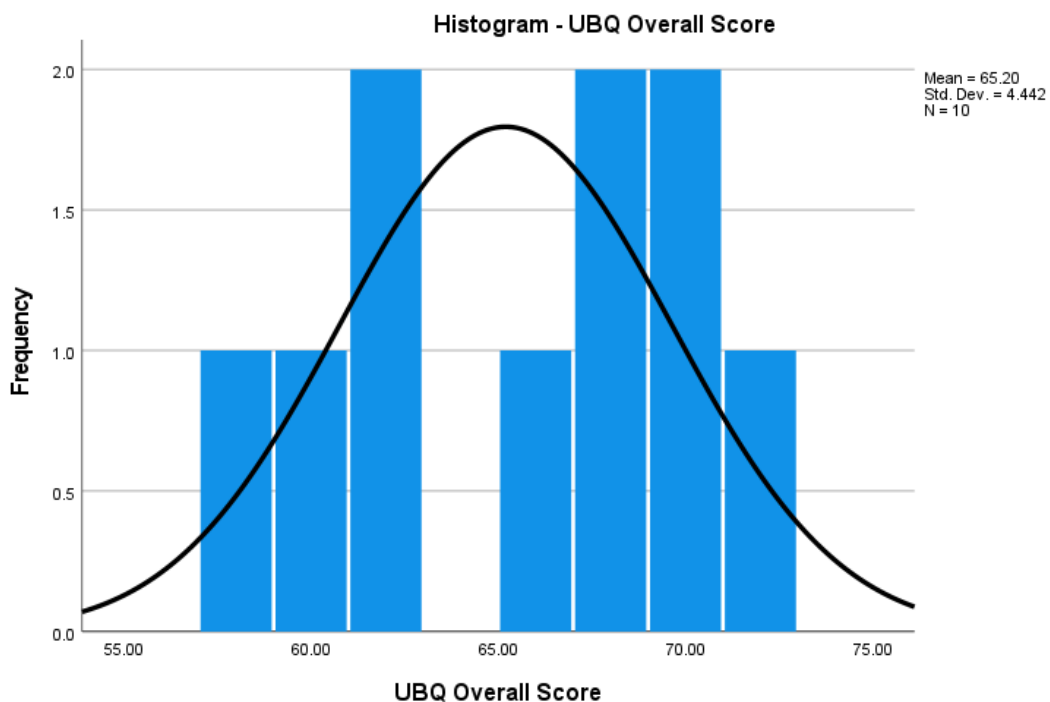
1. What are the ACE participants' perceptions of the student success program in terms of supporting their efforts to develop a sense of belonging within the institution?
2. What characteristics of the ACE program influence the students' sense of belonging?
3. What are the ACE participants' perception of student success barriers that adversely affected their sense-of-belonging beliefs?

Quantitative Data Analysis

One instrument utilized in this study was the University Belonging Questionnaire (UBQ) developed by Slaten, et al. (2018) to measure feelings of belonging in university students. It is made up of 24 questions on three subscales – University Affiliation (UA), University Support and Acceptance (USA), and Faculty and Staff Relations (FSR). Each of the 24 questions required students to respond to a 4-point–Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Student participants scored a mean of 65.2 (SD = 4.442), given a possible range of scores of 24 to 96, and a mean average of 2.7 on a scale of 1 to 4. Both are indicators of some sense of belonging among ACE students as measured by the UBQ. Figure 4.1 demonstrates a normal distribution of UBQ overall scores.

Figure 4.1

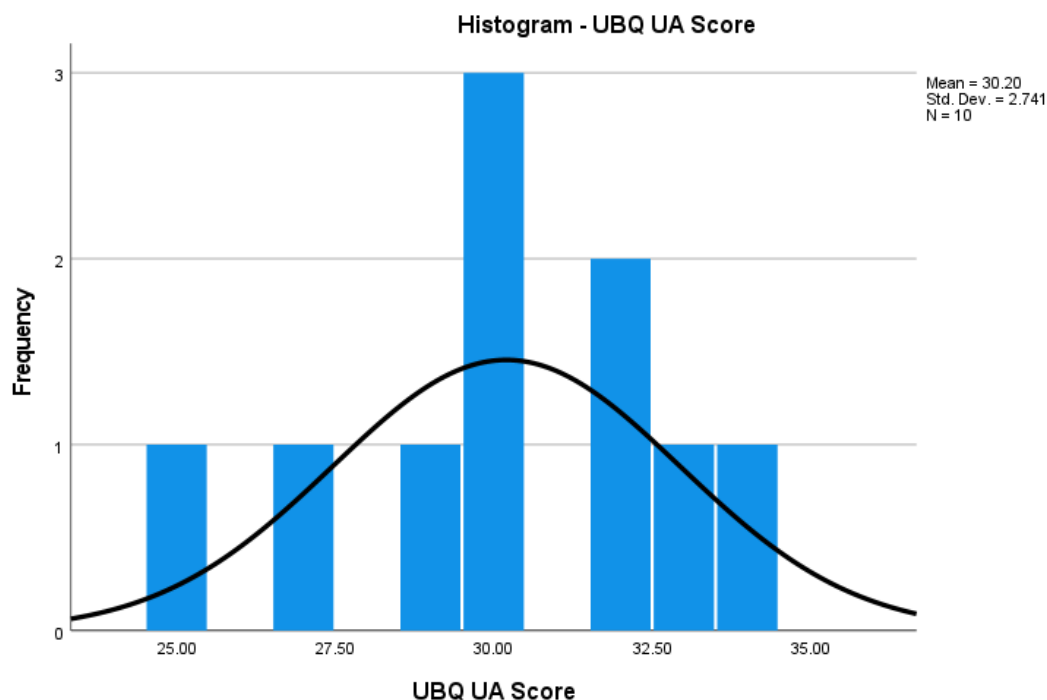
Distribution of University Belonging Questionnaire Scores



Within the 24 questions for the overall UBQ, the researcher analyzed each subscale. The University Affiliation (UA) subscale measured the degree participants associate their personal identity with their university. Examples of the 12-item subscale included pride in having and wearing university branded material and attending university sporting events. On the UBQ UA subscale, participants scored a mean of 30.20 (SD = 2.741), given a possible range of scores of 12 to 48, and a 2.5 mean average on a scale of 1 to 4, suggesting moderate university affiliation. Figure 4.2 demonstrates a normal distribution of UBQ UA scores with a slight skew toward the top of the scale.

Figure 4.2

Distribution of UBQ UA Scores

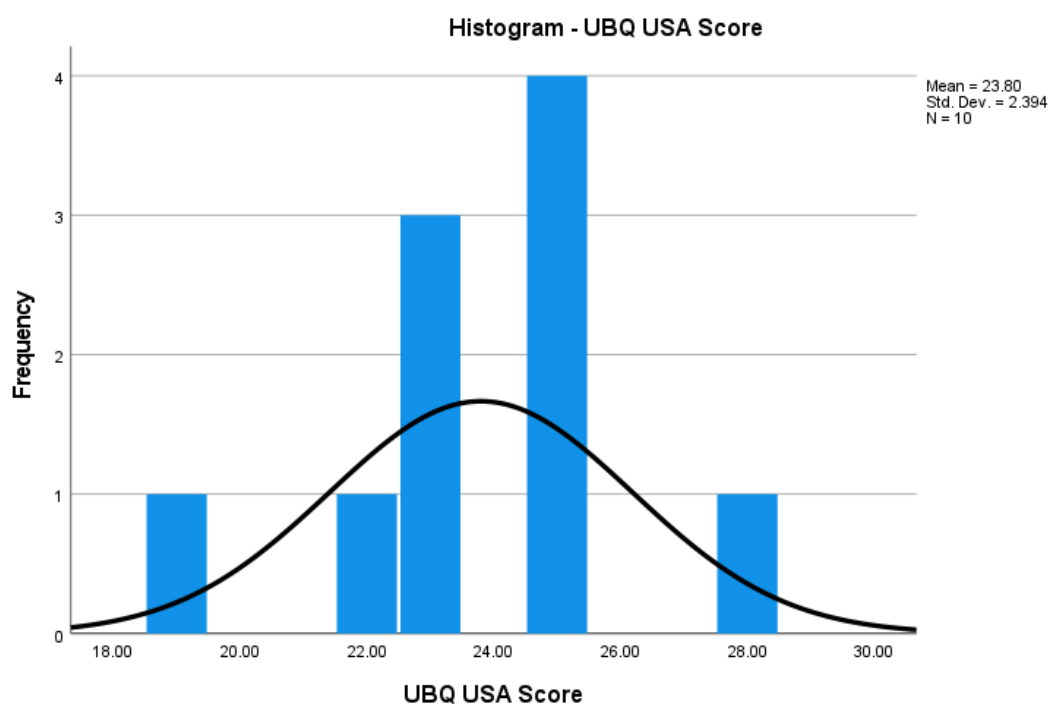


The University Support and Acceptance (USA) subscale measured participants' sense of support and acceptance from their university. Examples of the eight-item subscale included support relating to access to resources on campus and academic support and acceptance based on cultural

and individual differences. On the UBQ USA subscale, participants scored a mean of 23.80 (SD = 2.394), given a possible range of scores of 8 to 32, and a 2.98 mean average on a scale of 1 to 4, indicating a strong sense of university support and acceptance. Figure 4.3 demonstrates a normal distribution of UBQ USA scores with a slight skew toward the top of the scale.

Figure 4.3

Distribution of UBQ USA Scores



The Faculty and Staff Relations (FSR) subscale measured participants' sense of connection to university faculty and staff. Examples of the four-item subscale included the perception of being academically connected to a staff member at the university and feeling appreciated by a staff member. On the UBQ FSR subscale, participants scored a mean of 11.20 (SD = 1.932), given a possible range of scores of 4 to 16, and a 2.8 average mean on a scale of 1 to 4, indicating a strong reporting of quality relationships with faculty and staff. Figure 4.4 demonstrates a normal distribution of UBQ FSR scores, with a slight skew toward the low end of the scale.

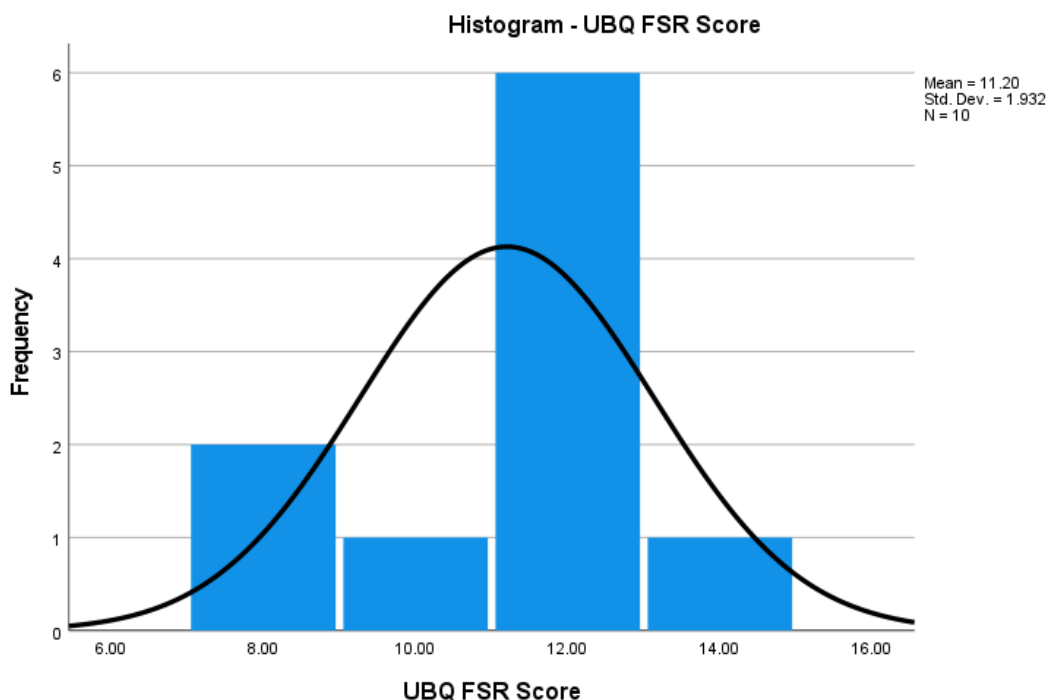
Figure 4.4*Distribution of UBQ FSR Scores*

Table 4.1 presents participant data for the overall UBQ score along with the data for each of the UBQ subscales.

Table 4.1*Measures of Belonging - overall summary score*

	N	Minimum	Maximum	Mean of Summary Score	Std. Deviation	Mean of Average Score
UBQ Score - overall	10	58	71	65.20	4.442	2.72
UBQ UA Score	10	25	34	30.20	2.741	2.52
UBQ USA Score	10	19	28	23.80	2.394	2.98
UBQ FSR Score	10	8	12	11.20	1.932	2.80

Note: UBQ summary scores for the overall questionnaire could range from 24 to 96; UBQ summary scores for UA could range from 12 to 48; UBQ scores for USA could range from 8 to

32; UBQ scores for FSR could range from 4 to 16; Mean of average score could range from 1 to 4.

Table 4.2 presents the data for the overall UBQ score median result of the data analysis, based on a scale of 1 to 4.

Table 4.2

Measures of Belonging, as overall scale score

	N	Minimum	Maximum	Median	Std. Deviation
UBQ Score - overall	10	1	4	3.0	0.349
UBQ UA Score	10	2	4	2.5	0.394
UBQ USA Score	10	2	4	3.0	0.369
UBQ FSR Score	10	2	4	3.0	0.483

Note: UBQ scores and subscales could range from 1 to 4.

Student Participant Demographics

For the 10 student participants, each completed the University Belonging Questionnaire (Slaten, et al., 2018) and then a semi-structured interview (Soden, 2017) over Zoom. Of the 10 student participants, 30% were female and 70% were male. Participants identified as Asian (30%), White (20%), Two or More Races (20%), Black or African American (10%), Hispanic (10%), and Native Hawaiian or Other Pacific Islander (10%). Table 4.3 includes the gender and race/ethnicity data.

Table 4.3*Student Participant Demographics by Gender and Race/Ethnicity*

	Frequency	Percent
Gender		
Female	3	30%
Male	7	70%
Total	10	100%
Race/Ethnicity		
Asian	3	30%
Black or African American	1	10%
Hispanic	1	10%
Native Hawaiian or Other Pacific Islander	1	10%
Two or More Races	2	20%
White	2	20%
Total	10	100%

The mean perceived UBQ scores for gender for the 10 student participants demonstrate that female student participants reported slightly higher levels of belongingness than male student participants. Table 4.4 presents the scores, which indicate female participants had a mean UBQ score of 68.67 (SD = 1.528) and male participants had a mean score of 63.71 (SD = 4.498).

Table 4.4*UBQ by Gender*

	N	Mean	St. Deviation	Std. Error Mean	Mean of Average Score
Female	3	68.67	1.528	.88192	2.86
Male	7	63.71	4.498	1.7003	2.65

Note: UBQ summary scores for the overall questionnaire could range from 24 to 96; Mean of average score could range from 1 to 4.

To determine if there was a significant mean level difference for UBQ between female and male student participants, the researcher conducted an independent sample t-test. Table 4.5 presents the results of the test, which indicate there was not a significant difference in mean UBQ scores between females and males ($t_8 = 1.808$, $p = .108$).

Table 4.5*Independent Sample t-Test for Gender and UBQ Scores*

	Levene's Test for Equality of Variances		t-test for equality of means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference	
								Lower	Upper
UBQ Score									
Equal variances assumed	3.949	.082	1.808	8	.108	4.952	2.739	-1.365	11.270

Equal variances not assumed	2.585	7.939	.033	4.952	1.915	.529	9.375
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In further breaking down the UBQ score into the subscales, Table 4.6 presents gender group statistics on all three UBQ subscales, showing that female student participants reported slightly higher levels of belongingness than male student participants across all subscales – University Affiliation (UA) (M = 31.67 SD = 1.528), University Support and Acceptance (USA) (M = 25.00, SD = .000), and Faculty and Staff Relations (FSR) (M = 12.00, SD = .000). The differences appear to be slight and require a test for mean level difference.

Table 4.6

UBQ Subscales by Gender

	N	Mean of Summary Score	Std. Deviation	Std. Error Mean	Mean of Average Score
UBQ UA Score					
Female	3	31.667	1.528	.882	2.64
Male	7	29.571	2.992	1.131	2.46
UBQ USA Score					
Female	3	25.000	.000	.000	3.13
Male	7	23.286	2.752	1.400	2.91
UBQ FSR Score					
Female	3	12.000	.000	.000	3.00
Male	7	10.857	2.268	.857	2.71

Note: UBQ summary scores for the overall questionnaire could range from 24 to 96; UBQ summary scores for UA could range from 12 to 48; UBQ scores for USA could range from 8 to 32; UBQ scores for FSR could range from 4 to 16; Mean of average score could range from 1 to 4.

To determine if there is a significant mean level difference, the researcher conducted an independent sample t-test to compare means of all three UBQ subscale scores between females and males. The independent sample t-test indicates that there is not a significant mean level difference in scores between females and males on any of the three UBQ subscales—UBQ UA ($t_8 = 1.124$, $p = .294$), UBQ USA ($t_8 = 1.042$, $p = .328$), and UBQ FSR ($t_8 = .843$, $p = .424$). In summary, gender did not appear to have an impact on students' UBQ subscale scores, similar to the findings presented earlier in this chapter that gender did not appear to have an impact on student participants' overall UBQ scores. Table 4.7 presents the t-test results.

Table 4.7

Independent Sample t-Test for UBQ Subscales by Gender

	Levene's Test for Equality of Variances		t-test for equality of means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference	
								Lower	Upper
UBQ UA Score									
Equal variances assumed	.971	.353	1.124	8	.294	2.095	1.864	-2.204	6.394
Equal variances not assumed			1.461	7.356	.185	2.095	1.434	-1.263	5.453
UBQ USA Score									
Equal variances assumed	2.598	.146	1.042	8	.328	1.714	1.644	-2.078	5.506
Equal variances not assumed			1.648	6.000	.150	1.714	1.040	-.831	4.259

UBQ FSR Score									
Equal variances assumed	9.582	.015	.843	8	.424	1.143	1.355	-1.982	4.268
Equal variances not assumed			1.333	6.000	.231	1.143	.857	-.956	3.240

The next demographic factor explored was race and ethnicity. Earlier in this chapter, Table 4.3 provided student participant demographics, including statistics on students' race and ethnicity, indicating 20% of participants identified as White. Data was recoded for this test to compare belonging scores of White students to students who identified in all other categories. The researcher combined Asian, Black or African American, Hispanic, Native Hawaiian or Other Pacific Islander, and Two or More Races race/ethnicity categories into "Other" due to the low number of participants and dispersed race and ethnicities. Table 4.8 shows that White students had higher belonging scores across both indicators, scoring a mean UBQ score of 69.00 (SD = 2.828). Students in all other race and ethnicity categories had a mean UBA score of 64.25 (SD = 4.367) indicating more students within a larger range of scores.

Table 4.8

UBQ by Race/Ethnicity

	N	Mean	St. Deviation	Std. Error Mean	Mean of Average Score
White	2	69.00	2.828	2.000	2.88
Other	8	64.25	4.367	1.544	2.68

Note: UBQ summary scores for the overall questionnaire could range from 24 to 96; Mean of average score could range from 1 to 4.

To determine if there is a significant mean level difference for UBQ between White and all other race categories, an independent sample t-test was conducted. Table 4.9 presents the

result of this independent sample t-test, which indicates that given the significance level, $\alpha = 0.05$, there is no significant difference in UBQ scores ($t_8 = 1.429$, $p = .191$) between White students and all other categories.

Table 4.9

Independent Sample t-Test for Race/Ethnicity and UBQ Scores

	Levene's Test for Equality of Variances		t-test for equality of means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
UBQ Score									
Equal variances assumed	1.867	.209	1.429	8	.191	4.750	3.325	-2.917	12.417
Equal variances not assumed			1.880	2.424	.178	4.750	2.527	-4.487	13.987

In further breaking down the UBQ score into the subscales, Table 4.10 presents group statistics on all three UBQ subscales by race and ethnicity, showing that White students scored higher on every UBQ subscale—UA ($M = 33.00$, $SD = 1.414$), USA ($M = 24.00$, $SD = 1.414$), and FSR ($M = 12.00$, $SD = .000$)—than students who identified in all other categories—UA ($M = 29.50$, $SD = 2.563$), USA ($M = 23.75$, $SD = 2.659$), and FSR ($M = 11.00$, $SD = 2.138$). The standard deviations of scores of students from all other categories were higher, indicating a flatter distribution and larger range of scores, compared to students who identified as White. This

data pointed to a difference in mean level between groups, which required further statistical analysis.

Table 4.10

UBQ Subscales by Race/Ethnicity

	N	Mean of Summary Score	Std. Deviation	Std. Error Mean	Mean of Average Score
UBQ UA Score					
White	2	33.000	1.414	1.000	2.75
All other	8	29.500	2.563	.906	2.46
UBQ USA Score					
White	2	24.000	1.414	1.000	3.00
All other	8	23.750	2.659	.940	2.97
UBQ FSR Score					
White	2	12.000	.000	.000	3.00
All other	8	11.000	2.138	.756	2.75

Note: UBQ summary scores for the overall questionnaire could range from 24 to 96; UBQ summary scores for UA could range from 12 to 48; UBQ scores for USA could range from 8 to 32; UBQ scores for FSR could range from 4 to 16; Mean of average score could range from 1 to 4.

To determine if there was a significant mean level difference, an independent sample t-test to compare means of UBQ subscale scores between White students and students identifying in all other race categories was conducted. Table 4.11 presents the results of the independent sample t-test for all three subscales, which indicate that there is not a significant mean level difference in all three subscale scores between White students and students who identified in all other race categories—UA ($t_8 = 1.807$, $p =$

.108), USA ($t_8 = .125$, $p = .904$), and FSR ($t_8 = .632$, $p = .545$). In summary, race and ethnicity did not appear to have an impact on all three UBQ subscale scores.

Table 4.11

Independent Sample t-Test for UBQ Subscale by Race/Ethnicity

	Levene's Test for Equality of Variances		t-test for equality of means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference	
								Lower	Upper
UBQ UA Score									
Equal variances assumed	.548	.480	1.807	8	.108	3.500	1.936	-0.965	7.966
Equal variances not assumed			2.593	3.026	.080	3.500	1.349	-0.774	7.774
UBQ USA Score									
Equal variances assumed	.731	.417	.125	8	.904	.2500	2.006	-4.376	4.876
Equal variances not assumed			.182	3.193	.866	.2500	1.372	-3.973	4.473
UBQ FSR Score									
Equal variances assumed	5.227	.052	.632	8	.545	1.000	1.581	-2.646	4.646
Equal variances not assumed			1.323	7.000	.227	1.000	.756	-.787	2.787

To determine what association exists among the three UBQ subscales as well as between the subscales and participants' sense of belonging, correlation tests were used.

To compare UBQ subscales, a Spearman's rho correlation test was used (Table 4.12). Though the correlation is not statistically significant, the tests show a positive moderate correlation among subscales University Affiliation (UA) and University Support and Acceptance (USA) ($r(8) = .50, p = .142$). There is a weak positive correlation between subscales USA and Faculty and Staff Relations (FSR) ($r(8) = .08, p = .829$), and a weak negative correlation between subscales UA and FSR ($r(8) = -.03, p = .939$).

Table 4.12

Spearman's rho Correlation Between UBQ Subscales

	UBQ UA Score	UBQ USA Score	UBQ FSR Score
UBQ UA Score			
Spearman's rho Correlation	1.000	.499	-.028
Sig. (2-tailed)	.	.142	.939
N	10	10	10
UBQ USA Score			
Spearman's rho Correlation	.499	1.000	.079
Sig. (2-tailed)	.142	.	.829
N	10	10	10
UBQ FSR Score			
Spearman's rho Correlation	-.028	.079	1.000
Sig. (2-tailed)	.939	.829	.
N	10	10	10

Note: Results are significant at the 0.05 level (2-tailed).

Summary and Findings from Quantitative Data Analysis

Research Question (RQ1): What are the ACE participants' perceptions of the student success program in terms of supporting their efforts to develop a sense of belonging within the institution?

In relation to the University Belonging Questionnaire (UBQ), the subscale for University Support and Acceptance (USA) relates to a perceived sense of acceptance and support from the university (support relating to access to resources on campus and academic support). Overall, students who participated scored a median of 3 in this subscale, which was “agree”. Based on the perceptions of students in this study, most students expressed how the ACE coaches provided them with the resources and connections they need to guide them in the right direction. Students would otherwise not have been aware of these resources or would not know the contact who can provide further support within their program of study. The subscale Faculty and Staff Relations (FSR) relates to developing relationships between faculty or staff members at the university (perception of being academically connected to a staff member at the university and feeling appreciated by a staff member). Overall, students who participated scored a median of 3 in this subscale, which was “agree”. Students discussed how they were very compatible with their coach and how they felt they had someone to talk to and go to for guidance. Students had a dialogue with their coach, both on the personal and academic level, to address issues and concerns and to offer the assistance and guidance the student needs to stay on track. Based on the perceptions of students, ACE coaching sessions allowed for a connection and individualized relationships.

Research Question 2 (RQ2): What characteristics of the ACE program influence the students' sense of belonging?

Quantitatively, the UBQ measured student belongingness which stemmed from student perceptions of valued involvement. Overall, students scored a median of 3, which was agreeing with the belonging measures. As portrayed by the UBQ subscales, University Support and Acceptance (USA) measured perceived support relating to access to resources. Student participants scored an average of 2.98 (agree) on this subscale, which was supported by the interviews when students expressed how ACE coaches provided them with the resources and connections that they needed to be successful.

Qualitative Data Analysis

Yin (2016) explained that nearly all qualitative studies contained information about the actions and voices of individual participants. Therefore, the second instrument utilized in this study included semi-structured interview questions developed by Soden (2017), which included 10 questions used for the student interviews and a different 10 questions used for the coaches. The researcher conducted five coach interviews and 10 student interviews. Questions allowed the advisors to express their perceptions of effective academic advising techniques in their own words, not in the researcher's terminology (Creswell, 2014). The individuals in the study were not identified by name during data collection and analysis. They were protected by a number coding system for anonymity, and the researcher assured participants that the findings would not be associated with them once published (Creswell, 2012). The researcher transcribed the interviews from the collected data. The researcher read the transcripts several times, and coded meaningful text. Categories started to form, and the researcher began to create "detailed

descriptions, develop themes or dimensions, and provide an interpretation in light of [participants'] views" (Creswell, 2013, p. 184).

Coach Interviews

In this section, the researcher will present the responses from the coach interviews. The researcher summarized the answers for each of the 10 questions. These qualitative interviews followed a conversational mode, with the quality of the relationship with each ACE coach individualized to each participant (Yin, 2016).

Coach question #1. *The topic for this study will be to discuss the effect of a discrete higher education student success program on feelings of sense of belonging. What do you like most about coaching students? What do you like least?* The responses regarding coaching ACE students included making connections, building relationships, and being able to have conversations with the students. These interactions and connections played a role in transforming the student and allowed the opportunity for shared experiences.

Coach #1 stated, "I like being able to make a deeper connection with the students than doing other things that I do." Coach #2 mentioned how being a part of the retention and persistence of students allowed for strong connections with the institution. Coach #3 stated, "as a coach you have an ability to impact someone's not only education experience, but life in a traumatic and fundamental way." Coach #3 and Coach #1 mentioned understanding the student as an individual and who the student is as a person.

The least preferred part of coaching ACE students reported by the coaches was working through situations where students were not as willing to participate. Coach #1 stated, "when they don't want to put in the effort, you can't force them, and you can try and tell them the effort gets the benefits but when they don't care it is very difficult." Coaches also reported difficulty

with availability and time. Coach #3 stated, “least is the availability and the amount of time I have to commit to students.” Furthermore, coaches reported the struggles when a student may be dealing with an issue that is not surmountable. Coach #4 stated, “the least is when I discover during our conversation that they have problems that are completely out of my control.”

Coach question #2. *Approximately how many student advisees do you have?* The coaches had varied numbers of students that they coached, ranging between 1 and 3 students a semester.

Coach question #3. *What are your coaching philosophies, and how do you use these when coaching students in preparing them for an undergraduate program?* Coaching philosophies varied in the responses from each coach. Overall, a common response was focusing on the student as individuals and learning about them as a person. Coach #1, Coach #4, and Coach #3 discussed listening and understanding each student as an individual as an integral role of a coach.

Coach #1 discussed a philosophy of “... focus on them as individuals; strike a balance of developing some personal connection, but also keeping that coaching.” Coach #1 also noted the importance of guiding the student and providing the student with the tools they need to find answers for themselves. Along these lines, Coach #3 explained how understanding the student as an individual and using their own knowledge of the institution can help to align the student with their goals. Coach #5 discussed how “...positive reinforcement is the best way to encourage any student.” Coach #4 mentioned a philosophy of how the students need to “discover their own strengths” and use these strengths to handle situations and solve any problem the student may face.

Coach question #4. *Do you feel like you understand course requirements, both for courses in General Education requirements and within the areas of the students' program of study?* Overall, the coaches all have a sense of degree requirements. Many coaches have institutional knowledge since they have been at the institute for a while, and others are familiar with most departments. Coach #1 mentioned how coaches are the “key to university.” Coach #1 discussed how the coach can help the student navigate and give them guidance on where to go to find out more information to make that initial connection with someone. The coaches also have access to a dashboard and can view the students' grade information and see the classes the student is enrolled in along with faculty names. Access to this information allows the coach to have context regarding the student's schedule and to provide appropriate direction for the student since the coach can see the student's course schedule.

Coach question #5. *What do you consider as a coaching barrier in your current role as an academic advisor?* Coach #3 discussed barriers surrounding time and a coach lacking institutional experience and not being able to provide the student with a clear understanding of referrals, which could prevent the student from succeeding. Coach #3 expressed how coaches can try to overcome barriers by utilizing resources they have available to them if they do not know the answer. Coach #2 and Coach #4 both expressed a concern about a potential barrier when the students are not forthcoming and are not willing to participate. Coach #2 discussed how as a coach they try to be as productive as they can and keep the question open ended. Furthermore, as a coach they try to get the student to put the effort in and get the most benefit they can out of the sessions. Coach #3 discussed an example of having a student who is hard to reach and this requiring a “great deal of persistence” by the coach.

Another coaching barrier discussed included different ethnic or cultural backgrounds between the coach and the student. Coach #1 provided an example explaining how a student may be in a situation that the coach has never been in before and it may be hard to understand where they are coming from. Coach #1 explained how there is matching done between the coach and student when they are paired as far as hobbies or degree, but there may be personal things that are happening in the student's life that may be tough to address. Coach #3 addressed how the coach needs to understand who that student is and learn about them as an individual. Coach #3 stated, "I am concerned with wanting to understand the person and I learn about them and then develop some form of relationship with them."

Coach question #6. *Tell me what you consider to be effective coaching strategies to promote student success as an ACE coach.* The semi-structured mode of interviewing coaches regarding effective coaching advising strategies allowed several examples to be discussed. Specific examples of how a coach can be effective during their coaching sessions were to offer suggestions and to assist with time management skills, which was a common goal for coaches. Coach #3 discussed the importance of listening and offering meaningful comments to navigate the student in the right direction and to understand the situation they may be facing. Coach #1 stressed how ... "it really depends on the student," but how it leads back to understanding what is happening with the student and to discuss with them different ways they could approach their issues.

Coach #2 stated, "I feel like students benefit a lot more from doing things hands on." Therefore, Coach #2 utilized this approach with the students to benefit the students. Coach #2 discussed how they try to understand the students' study habits and work schedule and then try and talk them through managing their time efficiently. Coach #5 discussed how "positive

reinforcement and encouragement work a great deal with them.” Coach #5 noted how they try to have the student more openly communicate so they might provide them with the resources to be successful. Coach #3 stressed the importance of being able to provide the students with opportunities within the institution that are available.

Coach question #7. *Describe a coaching session, if applicable, where you felt the meeting with a student was unsuccessful.* Coaches felt a barrier, similar to question #5, of students who just go through the motions of meeting with the coach, put very minimal effort into the sessions, and are not very willing to participate. A specific example mentioned by Coach #2 was a student who did not care about his grades, which is why he just did not do much or show any concern. In this situation, Coach #2 mentioned how the coach tried to be realistic with the student and discussed with this student the minimal effort needed to get through the program. Coach #7 also provided an example of a session where the student was very short with their answers and did not want to dig deeper. In this instance, Coach #7 did not want the session to be unproductive, so the coach did not force the student to sit there with them to waste the student’s time and their own time. On the other hand, Coach #5 discussed how their sessions have all been productive with good conversations.

Another example of an unsuccessful session was with Coach #1, where the sessions were on Zoom and the student needed “to be connected with real people face to face.” Coach #1 discussed how the students can be hard to reach and may not feel connected, which hindered the full benefits of the ACE program. Coach #3 discussed instances of how it could take a student only one class in which the student did poorly to throw off their degree map. This was an example of how the coach felt as through ... “I didn’t have the ability to affect necessarily the outcome.”

Coach question #8. *Do you feel your role as an ACE coach is to help students in areas outside of academics, such as a student's personal life?* The coaches interviewed indicated how a student's personal life could affect their academic life; therefore, coaches were prepared to provide assistance so the student could reach their educational goals. Coaches discussed how managing the students' time effectively is imperative since the student has obligations outside of school.

Coach #1 stated how they "would not cross any lines but can help students with what they need." Furthermore, Coach #1 discussed how "I try to focus in on the campus because I want them to feel that sense of belonging." Coach #1 explained how a person's daily obligations can fit in so they can still be successful academically. Coach #8 expressed how they take a "whole person approach" and how this helps develop a better relationship with them and how they can share more of their own experiences.

Coach question #9. *Do you feel a coach and student relationship within a college institution can impact a student's desire to stay enrolled in a degree program?* All the coaches interviewed expressed the importance of relationships. Coach #5 explained how the more support a coach can provide in guiding the student, the more welcome students will feel and will allow for a sense of belonging. Coach #5 stated how the institute needs to "treat them as family, as a human being, rather than just a student."

An example discussed with several coaches interviewed was about bad experiences faced by the students. One example offered by Coach #4 is how the coaches need to leave their comfort zone and try fixing that one problem that a student may be facing to have a big impact. Coach #2 stated how "bad experiences with professors are going to make students not want to try and not want to continue here." Coach #2 further explained how it can take one experience at the

institute to make or break a student. Coach #1 indicated how students go to class and may not know what is available for them, so it makes personal connections so important. Coach #1 further explained how a good consequence of the ACE program was how it provided information to the students so they knew what was available for them, since they may not be familiar with college and all the institution has to offer.

Coach question #10. *Do you feel administration supports your needs as an ACE coach at your institution? Do you consider this a barrier or a strategy in your academic advising duties?* Overall, coaches discussed how administration supported their needs as a coach and the ACE program overall. Coach #2 stated how “I think the way the program is set up is like the way it should be.” Coach #1 mentioned how success is what the institute wants to see and how the institute has done a good job in identifying the students in need of the program. Furthermore, the program has become a “toolbox” for anyone associated with the institute to get what they need. Coach #3 mentioned how there may be certain priorities set by administration and communication could be better, but overall decisions on the program have been in the right direction.

Student Interviews

In this section, the researcher will present the responses from the student interviews. The researcher summarized the answers for each of the 10 questions.

Student question #1. *What is your program of study?* The participants in this study had a range of majors, which included Computer and Electrical Engineering, Architecture, Computer Science, Health Sciences, Biology, and Interdisciplinary Studies.

Student question #2. *The topic for this study will be to discuss the effect of a discrete higher education student success program on feelings of sense of belonging. How often*

do you meet with a coach each semester? Since the program requirement is four meetings a semester with the ACE coach, all students interviewed stated that they met four times, which was about once every few weeks or once a month.

Student question #3. *Describe a typical ACE coaching session if applicable, where you felt meeting with the coach was unsuccessful.* Overall, mostly all the students interviewed felt that none of the meetings were unsuccessful. Student #1 stated, “I am having pretty good experiences with my coach. She is always very helpful, listens to me, and advises me very well.” Student #1 stated she never felt meetings were unsuccessful and felt they “clicked and were very compatible” [with their coach]. Furthermore, Student #3 discussed how their coach would ask questions that made the student think about what they needed to get done for the academic year or semester and then provided advice on how to approach it and references to go to for assistance. Student #4 mentioned how the coach would discuss how their classes are going and would offer advice on how to manage their time better.

Only a couple of students felt a couple of sessions were not as productive, for example, in the middle of the semester, when there were limited topics to discuss or during the first session when there was also not much to discuss beyond introductions.

Student question #4. *What suggestions would you give an ACE coach on what you consider to be effective advising strategies to promote student success?* The most common answer students reported surrounded communication. Student #3 suggested to not “make it another lecture” and to just be able to talk to the coach. Student #10 discussed how the coaches should be open and ready to start a conversation so there is no sense of awkwardness with the student.

Students also discussed the need for check-ins to ensure the students' mental health was strong and to make sure they did not feel too stressed. Students also felt it would be helpful for the coach to have a sense of the classes that the student is taking so the coach can understand what the student may be going through. Student #5 gave an example of how their coach would check in with messages once or twice a week to "make sure that I was keeping up with my studying and that I didn't need any help." Student #4 stated a suggestion of "just to be available." Students #6 and #9 agreed that the coach should be prepared with resources for the student and to remind them to utilize these resources.

Student question #5. *Tell me about an ACE coach experience that you considered to be negative to your learning experience in college?* The students interviewed had no negative experiences to share and felt that with regards to the ACE program, the experiences have all been positive. Student #7 only mentioned how it could be negative if the coach is not on the same campus as the student because the coach may not know a lot about the other campus. Student #3 stated, "the meetings only help me get better study habits and find resources available to me."

Student question #6. *How much consideration is given to a student's schedule and needs when setting times to meet with an ACE coach?* The students interviewed agreed on the ease of scheduling due to the online portal in place and how they can always pick the best time. In any instances of needing to change an appointment, most students discussed how they could easily reach out to their coach and they were always willing and able to work with the student on a time that would be convenient.

Student question #7. *In your opinion, name two things that would lead a student to withdraw from college.* In the interviews, students reported many examples, including personal issues, financial issues, and overall college experiences. Students #2, 3, 7, and 10 reported

personal reasons like health, trouble at home, or having no support. Students #1, 2, 5, and 10 reported financial strains and not being able to afford the tuition.

Most students provided examples surrounding the college experience. Students #1, 4, and 6 mentioned not having a sense of belonging with the institution. Furthermore, Students #1, 3, 4, 8, 7 and 9 gave reasons of not being interested in college, not being motivated, obtaining bad grades, college not being for them, and overall bad experiences within the institution.

Student question #8. *Do you feel like your ACE coach has helped you in areas outside of college, to include personal areas of your life?* Half of the students interviewed discussed how meetings with their coach are strictly academic, but Student #4 mentioned how if they did discuss personal issues ... “I am pretty sure they would have helped me.”

The other half of students interviewed agreed that their ACE coach helped in areas of their personal lives. Student #5 discussed how they talk about their home life. Student #1 mentioned, “I feel like when I met with my coach, I was having a conversation with a friend so that made me feel comfortable with them,” which is why personal areas of life were discussed. Students #7 and #9 discussed how their coach helps them organize their day, which includes their work schedule, and balancing work and school.

Student question #9. *Do you feel your ACE coach has provided you the resources you need to be successful in your program of study?* All students interviewed said that their coach provided them with resources to be successful. Students discussed how the coach provided advice and informed them of tools that may be accessible to the student, like tutoring sessions and student jobs. Student #2 discussed how the coach “lets them know where they can go” and Student #1 mentioned how the coach would provide specific contacts to address a particular issue or question.

Student question #10. *How do relationships in a college institution impact a student's desire to stay enrolled or withdraw?* The students interviewed consistently answered how relationships with faculty and peers had a positive impact on staying enrolled at the college. The students discussed how they have friends within their own program who help and support each other and provide guidance for the student. Student #9 discussed how having good friends helps and how “you want to stay in school because it’s like you’re in it together.” Student #4 described, “I try to surround myself with people who motivate me.” Furthermore, Student #3 discussed how they like to be able to interact with professors and having people around them who know what they are doing and can teach them and motivate them.

Students also expressed how the institution could do more with networking and how the campus is very quiet. Student #6 expressed, “the relationship with the school may not be strong because not much is happening here and it’s a dead place.” However, Student #6 surrounds themselves with peers that motivate them. Student #5 described how there is not much of a campus life and the institution could do better with promoting committees. Another example was explained by Student #10 on how the campus is very quiet, but they developed friendships with other students in their program and they stick together and help each other.

Coach and Student Pairings

Five of the 10 students interviewed were each linked to one of the five coaches interviewed. In this section, the responses from the coach and student interviews are summarized to link any similarities between the coach and student pairing. Table 4.13 below summarizes the responses and shows the similarities and differences between the groups.

Coach #1 and Student #1 - The student discussed how they “clicked” and were “very compatible” with their coach. The coach expressed the importance of making a personal connection with the student, and the student, in turn, did feel that the coach would inquire about their family life and make sure their mental health was good. The student further stated how they felt they were having a conversation with a friend and felt very comfortable with their coach. The coach discussed the importance of guiding the students and acting as a key to the university. This was supported by the student feeling as though the coach provided them with contact information to help the student know who to go to so they can resolve any program issues.

Coach #2 and Student #2 – The student mentioned how the coach is very helpful with offering contact information and what office they can go to for any specific issues they have. The coach discussed the significance of offering solutions so long as the student is willing to participate. The student discussed how meetings with the coach were strictly academic in nature, and this was also discussed by the coach. The coach discussed seeing the progress of students and assisting them with the transition from high school to college on the academic side, especially with time management.

Coach #3 and Student #3 – The student discussed how their coach would ask questions to make them think about what they needed to get done for the academic year and then gave advice on how to approach it and provided references. The coach stressed how they want to understand the student as an individual and learn who they are. Furthermore, there was a need for relationship building in the coaching sessions and to listen to the student first and foremost. The student felt that it was important to the ability to interact and to obtain guidance. This was supported by the coach feeling the need to navigate the student toward the right direction.

Coach #4 and Student #4 – The student discussed how a coach needs to be available.

The student also stressed the importance of obtaining support for the student’s time management skills. In turn, the coach mentioned how much they enjoy the conversations with the student and how it was important to figure out any problems, like time management issues, so they can be addressed. The coach discussed how they try to handle the students’ situations differently and try to solve the problem at hand.

Coach #5 and Student #5 – The student discussed examples of how their coach checks in with them on a weekly basis to ensure they are on track and don’t need any help or have any questions. The coach expressed the importance of wanting to be a part of transforming the student and interacting with them. The coach relies on giving the students encouragement and positive reinforcement, and this is seen by the student in the way the coach checks in and provides the resources they need to be successful.

Table 4.13

Matrix of Coach and Student Pairings

Main Points of Discussion	Coach #1 and Student #1	Coach #2 and Student #2	Coach #3 and Student #3	Coach #4 and Student #4	Coach #5 and Student #5
Compatibility between coach and student	X				
Personal connection between coach and student	X		X		X
Student felt comfortable with coach	X				X
Coach guided students; provided contacts and offered solutions	X	X	X		X
Coach and student meetings were strictly academic		X			
Coach provided time management advice		X	X	X	

Treated students as individuals

X

X

Emerging Themes

In this study, themes emerged from the final stages of the qualitative analysis based on the interview questions (see Table 4.14 below). The themes included the topic areas of communication, individual relationships, and connections, which included feelings of a sense of belonging. According to Himes (2014), personalized advisement made students more aware of their own priorities, talents, values, and educational purpose. The more students engaged academically and socially with people on a college campus, the more likely they were to stay and graduate from college. Students who were most successful developed a relationship with an academic advisor who helped the student navigate the social and academic rules of college (Tinto, 2012).

Table 4.14

Matrix of Emerging Themes

Participant	Communication Matters	EMERGING THEMES	
		Individualized Relationships are Key	Connections Matter
Coach #1		Coaches should focus on the student as an individual and strike a balance between a personal connection and a coach	Coaches should keep the dynamic of having a strong personal connection with the student, with a goal of providing the student with the tools they need to do things on their own
Coach #2	Communication through	Questions to the student were beneficial	

	conversation allowed issues that the student may be facing to surface	when they were open ended, so the coach learned more about the student	
Coach #3	The ability to talk to a student allowed conversation that led to figure out the one event that may have threw the student off in their academics	A coach needs to understand the student as a person and build a relationship with them so the coach can truly understand the student's goals and have an impact	Coaches are the "key to the university" and should help navigate the student and make the initial connection for them
Coach #4	The coach needs to figure out the problem that the student may be facing; however, the solution may be out of the coach's control		Coaches need to make a connection with the students to discover student strengths
Coach #5	Interact with students as you interact with another human being and treat them as such	A coach should learn as much as they can about the student and be a cheerleader for them	Coaches have connections and resources that they should use to their advantage when guiding the student
Student #1	Conversations with the coach made the student feel as though they were conversing with a friend	The student felt they clicked and were very compatible with their coach and felt very comfortable discussing issues	
Student #2		When the coach was aware of the student's program of study, the	Coaches should make connections for the student and

		coach was able to provide resources and contact information that were meaningful	provide networking opportunities
Student #3	Students like to be able to interact; having someone to talk to is valuable outside of academic lectures	The coach provided guidance when the coach knew the individual experiences of the student	
Student #4	A coach needs to be available so when the student has an item to discuss, the coach is around and willing to communicate		
Student #5	The coach continuously checks in with the student and ensure the student was on track with their academics	Coaches provided resources and contact information once the coach understood specific experiences the student had	Connection between the student and coach allowed for weekly texts and check-ins
Student #6	Communication between the student and coach allowed the opportunity for the coach to provide resources to the student		Coaches facilitate the initial connection between a student and the resources available to the student
Student #7		Coaches should personally know the classes a student is	The coach provided advice and connected with

		taking so they can understand what they are experiencing	tutoring opportunities that the student was not aware of
Student #8		Sessions with the coach were all good experiences because the coach gave advice based on what the student was experiencing	The coach reminded the student of resources that were available to them and provided them with the contact information for other departments to utilize the resources
Student #9	The coach always listened to the student and was very helpful	Every student is different so a coach should let them know their options based on what the student is going through	Having a coach allows the student to be reminded of what the student has access to and to ease the student's mind by connecting with each other
Student #10	A coach should be open and ready to start a conversation because a student needs to get pushed to open a discussion		Students need to put themselves out there to make friends and develop relationships

Emerging Theme: Communication Matters

ACE student participants and ACE coaches discussed how much communication matters and means to the students. Communication allows for the discovery of an issue the student may

be facing, including lack of time management skills or a particular experience or problem that is hindering the student from performing to their full potential.

Student #10 discussed the importance of a coach just to be “open and ready to start to conversation” because it takes that initial push to get a student to open up when the student may not know what to say or what to talk about. Student #4 mentioned for the coach “to just be available” so that when the student has an item to discuss, the ACE coach is around and willing to communicate with them. Coach #5 mentioned, “I like to interact with the students as you interact with another human being.” Student #3 discussed how they like being able to interact and how valuable it is to have people around and to be motivated.

Communication is what allows for the root of an issue to surface as well. There were several coaches and students who discussed how one bad experience, or one problem may be the root of some of the students’ academic issues. As mentioned by Coach #4, a student is part of the program because they have a problem, and the coach needs to figure out what it is. Coach #2 discussed how communicating with a student who is willing to participate allowed for conversation to figure out what may have gone wrong. Coach #3 mentioned, “sometimes it could take one event to just throw them off, and just being able to talk about that with somebody makes all the difference.” However, Coach #4 expressed how “my least favorite part of coaching is when I discover during our conversation that they have some problem that is completely out of my control.”

One common issue that was discussed with the participating coaches was discovering the students have issues with time management. Student #4 discussed, “I had a lot of trouble with time management so that is something we were working in and my coach gave me advice on

how to manage my time better.” The coaches expressed how openly communicating has shown that student juggle a lot of things, including academic, home life and work, and time management is one of those issues that they need to talk through and explain the importance of that skill.

Emerging Theme: Individualized Relationships Are Key

ACE student participants and ACE coaches discussed how relationships that are individualized allow for deeper personal connections. Student #7 discussed how coaches should personally know what classes the student is taking and what is going on with the student so they can better understand what they are going through. Coach #3 discussed understanding the student as a person and build a relationship with that individual so the coach can truly understand their goals and have an impact on the student. Coach #5 mentioned learning as much as they can about the student and be a “cheerleader for them”. Furthermore, the coach should treat the student as a human being rather than a student to guide them in the right direction. Student #10 discussed how they like to surround themselves with people who motivate them and can help them benefit.

Coach #1 discussed focusing on the students as individuals and striking a balance between a personal connection and a coach. This individuality is what allows for deeper connections between the coach and the student. Effective coaching depends on the student each coach is working with. Coach #1 mentioned, “just having someone help the students who may need that personal connection.”

Emerging Theme: Connections Matters

Both student and coach participants stated the importance of connections within the institution. Student #5 discussed how their coach does weekly check-ins to ensure the student is

on track. Student #9 mentioned that it is great to just have someone to remind you of things and how coaches “ease students to remind them of the things they have at their fingertips.” Student #6 gave an example of how their coach is always prepared with resources and is always ready with suggestions. Students discussed how coaches give them advice on who to go to for help and will make that initial connection for them. The coaches remind the students of the tools they have access to and who they can introduce them to gain further information or help, for example, tutoring or financial aid availability.

The interviewed coaches discussed the value of connections as well. Coach #1 mentioned, “keep the dynamic of guiding and having a strong personal connection, with the goal of trying to provide them with the tools they need to internally do this for themselves.” Coach #1 discussed how coaches are the “key to the university” and how the coach should help direct the student and make the initial connection for them. Coach #5 discussed that coaches have many resources they can tap into if they do not know an answer, so they use this to their advantage when encouraging and guiding the students. Coach #3 stressed the importance of the need for coaches to have “institutional knowledge” to navigate the student in the right direction. Per the coach interviews, providing the connection and understanding referrals and offices allowed the student to have guidance and break down any potential barriers to reaching their academic success.

Summary and Findings from the Qualitative Data Analysis

Research Question (RQ1): What are the ACE participants’ perceptions of the student success program in terms of supporting their efforts to develop a sense of belonging within the institution?

Regarding to the coach and student interviews, students' perceptions of the student success program in supporting their efforts to develop a sense of belonging included communication, individualized relationships, and making connections. Students expressed how meetings with their ACE coach focused on the needs of the individual student, and the ACE coach providing them with the resources to find answers was beneficial.

Students described the coaching sessions as intended to guide the students and to get the student to think about what needs to get done for the semester and how to approach it. Students expressed how their coaches provided guidance and gave advice and references for how to handle specific situations. The students who participated in the study discussed how the coaches were prepared with resources to address their needs and inform them of the tools that are accessible to them. Students emphasized how conversations were individualized and provided the motivation the student needed to persist in their program of study.

Research Question 2 (RQ2): What characteristics of the ACE program influence the students' sense of belonging?

Based on the student interviews, many discussions between the students and ACE coaches involved time management issues. Students have many obligations between school, work, and family and having the ability to talk about this and obtain advice helped the students.

The ACE program requires that students meet with their coach a minimum of four times a semester. As part of the ACE syllabus, students must attend a minimum of one Student Success Workshop each semester and complete a minimum of three modules in Canvas per semester. Workshops and modules cover such topics as time management, study skills, test taking strategies, mental health and wellness, career exploration, and financial success. These types of

issues were all points of discussion with the students, as they expressed concerns regarding their mental health and financial constraints, along with concerns about time management. Students discussed how their ACE coach provided them with the opportunity to address these types of concerns and how the coach provided the needed support. The students also discussed how the ACE coach provided them networking opportunities and advice about their program of study and career goals, which the program also addresses in the workshops.

Per the ACE syllabus, other module options include communication skills, learning more about the institution, academic reference guides, and “Believe to Achieve.” These types of modules all relate to instilling a sense of belonging to the institution. The emerging themes from the research included how much connections and individualized relationships matter.

The qualitative data analyzed in this study indicated that faculty and staff play a critical role in facilitating a sense of belonging to the institution in ACE students. In the interview questions, student participants overwhelmingly mentioned the open communication and connections the ACE coaches provided.

Research Question 3 (RQ3): What are the ACE participants' perception of student success barriers that adversely affected their sense-of-belonging beliefs?

Based on the qualitative data analyzed, students discussed both academic and personal barriers that affected their sense of belonging beliefs, which may lead to withdrawing from the institution. One aspect was relationships. Students expressed the importance of having the ability to interact with faculty and staff and developing relationships with faculty in their programs. Students discussed how surrounding themselves with people who motivate them and having friends within their program made the student want to work harder. Not having these

relationships hindered the students from succeeding. Barriers discussed include personal issues, for instance, trouble at home, no support or help from their family, and feeling that college is not for them due to a lack of interest. Other barriers based on student participant interviews were financial issues, a drop in grades, workload, and bad experiences within the institute.

Summary

In this section, the researcher categorized the quantitative and qualitative analyses based on their connection with the research questions (see Table 4.15 below). The researcher wrote the research questions to consider students' and ACE coaches' perceptions of the student success program in terms of supporting their efforts to develop a sense of belonging within the institution. Feelings of a sense of belonging were obtained using a questionnaire. The researcher obtained perceptions from ACE coaches and students to gain an understanding of coaching sessions and ACE coach/student relationships. Students noted in their experiences how ACE coaches have had a positive impact on them by providing support to make connections with the institution and to develop relationships. Participants also discussed barriers prohibiting effective coaching strategies between students and coaches.

Table 4.15

Quantitative and Qualitative Instrumentation Tied to Research Questions

Instrumentation	RESEARCH QUESTIONS		
	RQ1	RQ2	RQ3
Quantitative – University Belonging Questionnaire (UBQ)	X	X	
Qualitative – Coach Interviews			
Question 1: What do you like most about coaching students? What do you like least?		X	X

Question 2: Approximately how many student advisees do you have?		
Question 3: What are your coaching philosophies, and how do you use these when coaching students in preparing them for an undergraduate program?	X	X
Question 4: Do you feel like you understand course requirements, both for courses in General Education requirements and within the areas of the students' program of study?		
Question 5: What do you consider as a coaching barrier in your current role as an academic advisor?		X
Question 6: Tell me what you consider to be effective coaching strategies to promote student success as an ACE coach	X	
Question 7: Describe a coaching session, if applicable, where you felt the meeting with a student was unsuccessful		X
Question 8: Do you feel your role as an ACE coach is to help students in areas outside of academics, such as a student's personal life?	X	
Question 9: Do you feel a coach and student relationship within a college institution can impact a student's desire to stay enrolled in a degree program?	X	X
Question 10: Do you feel administration supports your needs as an ACE coach at your institution? Do you consider this a barrier or a strategy in your academic advising duties?		X

Qualitative – Student Interviews

Question 1: What is your program of study?

Question 2: How often do you meet with a coach each semester?

Question 3: Describe a typical ACE coaching session if applicable, where you felt meeting with the coach was unsuccessful

Question 4: What suggestions would you give an ACE coach on what you consider to be effective advising strategies to promote student success?

Question 5: Tell me about an ACE coach experience that you considered to be negative to your learning experience in college?

Question 6: How much consideration is given to a student's schedule and needs when setting times to meet with an ACE coach?

Question 7: In your opinion, name two things that would lead a student to withdraw from college.

Question 8: Do you feel like your ACE coach has helped you in areas outside of college, to include personal areas of your life?	X	X	X
Question 9: Do you feel your ACE coach has provided you the resources you need to be successful in your program of study?	X	X	
Question 10: How do relationships in a college institution impact a student's desire to stay enrolled or withdraw?	X	X	

Rhodes (2008) said mentoring improved a student's performance and enhanced a student's self-esteem and self-efficacy. Participants in this study discussed the importance of communication, connections, and individualized relationships. Students mentioned that their ACE coach provided them with the tools needed to be successful, such as time management discussions and knowledge of resources that are available to them.

The ACE coaches in the study discussed the importance of treating each student as an individual. Overall, making a deeper connection with the student allowed for better communication and to pinpoint issues that the student may be facing. Academic advisors strengthened the connection between students and their institutions to try to affect college retention and created strong and ongoing relationships with students to bind the students to the institution with someone who cared deeply about student success (Vianden, 2016).

The purpose of this study was to examine how the ACE program and its specific components may enhance student success and students' associated feelings of a sense of belonging. The findings from this study, along with the conclusions drawn from the study, are presented in Chapter Five. In addition, recommendations for future research on this topic are discussed, along with a final summary containing a complete overview of the major components of this study.

Chapter Five: Discussion

Summary of Study

The researcher used a mixed methods case study to examine how the ACE program and its specific components may enhance student success and students' associated feelings of a sense of belonging. By exploring the perceptions of what encompassed a sense of belonging as part of a student success program, the researcher measured the effectiveness of the program from a sense of belonging perspective.

The researcher gathered data for this study at a private four-year college in the eastern region of the United States. The researcher chose this research site because of the researcher's access to data and participants. The researcher administered a sense of belonging questionnaire to a sample of 10 students in the student success program to measure feelings of belonging. The researcher also interviewed a sample of five coaches and the same sample of 10 students in the student success program who completed the questionnaire, where five of the students were advisees of the five coaches interviewed, to examine their perceptions of the program related to feelings of a sense of belonging. The researcher digitally recorded each interview and transcribed for analysis. The researcher then coded meaningful text. Three themes emerged from the analysis, which were communication matters, individualized relationships are key, and connections matter. The research questions guiding this study were:

1. What are the ACE participants' perceptions of the student success program in terms of supporting their efforts to develop a sense of belonging within the institution?
2. What characteristics of the ACE program influence the students' sense of belonging?

3. What are the ACE participants' perception of student success barriers that adversely affected their sense-of-belonging beliefs?

Some college students were in a state of change and needed academic advice to achieve success during a college transition (Tinto, 2012). As part of the student success program, linking the student with an ACE coach offered an opportunity for the student to confide in someone and make a connection with a staff or faculty member at the institution. This initial connection provided the student with a sense of support and guidance opportunities. As Rhodes said in 2008, mentoring has positive effects, both academically and socially, and is multi-layered since it can improve a students' performance, which can then enhance students' self-esteem and self-efficacy (Rhodes, 2008). Strayhorn (2019) defined sense of belonging as a basic human need and suggested that it was related to students' perceived social support on campus, feelings of connectedness, and feelings of value and acceptance by others. During the interviews, many of the student participants mentioned how the coach provided guidance and support, which reminded the students of the tools that are accessible to them to assist in their academic success. The students' perceived social support and feeling of connectedness refers to their sense of belonging. (Strayhorn, 2019). Other institutions of higher education could benefit from the data collected from this program model and results may add to the overall student success literature.

Theme 1: Communication Matters. As part of the student success program requirement, students must meet with their ACE coach four times a semester. Important aspects of academic advisement included developing means of communication and enhancement of students' critical thinking skills (Paul & Fitzpatrick, 2015). Most of the student and coach participants discussed how conversation allowed issues that the student may be facing to surface

and allowed the opportunity for the coach to provide resources to the student, which provided social support for the student and played a role in sense-of-belonging feelings. Students tended to be more motivated after advisement, which opened a pathway to ask for further assistance (Donaldson et al., 2016). Feeling positive about the learning experience in classes, feeling engaged in these classes, and perceiving support and value on campus played a role in sense of belonging (Hurtado et al., 2007; Strayhorn 2019; Wilson et al., 2015). Students expressed how they liked to interact and discussed the value of communicating outside of academic lectures which created a sense of belonging. Coaches stressed how important it is to treat and interact with each student as a human being to instill a sense of belonging.

According to Tinto (1975 and 1993), students must develop relationships and a new community to be successful in college, as shown by Astin's Student Involvement Theory, which stated that the more involved students were in their college education, the more likely they were to succeed (Astin, 1984). The interviewed students consistently answered how relationships with faculty and peers had a positive impact on staying enrolled at the college and they played a role in feelings of a sense of belonging. The students discussed how they have friends within their own program who help and support each other and provide guidance for the student, which instills a feeling of a sense of belonging. Creating positive social communities was vital for improving a student's institutional commitment and decreasing the likelihood of dropping out (Burke, 2019).

The researcher was not surprised that student participants commented that they shared both academic and personal experiences with their coach. The coach acted as a resource for connections to the ACE students throughout the student success program. This type of

communicative interaction is a positive experience that helped make the ACE coach and student relationship successful in influencing the students' sense of belonging. Although the student participants did not say that they hoped to gain one thing in particular from the ACE coaches, their comments regarding the resources the coach shared align with a sense of belonging because students associated advisor support with a stronger sense of belonging and an improved academic self-concept (Curtin et al., 2013).

Theme 2: Individualized Relationships Are Key. Both student and coach participants discussed how relationships that are individualized allow for deeper personal connections, which play a role in feelings of a sense of belonging. As discussed during interviews, a coach needs to understand the student as a person and build a relationship so the coach can truly understand the student's goals and have an impact. Understanding the differences among students allowed the advisor to build a more supportive and success-oriented environment for the advisee (Donaldson et al., 2016). When a student feels they matter and share commitments with an advisor, the student feels a sense of belonging (McMillan & Chavis, 1986). When the coach knew the individualized experiences of the student, the coach provided guidance to the student. Student participants stressed how every student is different so a coach should let them know their options based on what the student is going through. The coaches instilled a sense of belonging, pride, and mattering in ACE students by strengthening the connection between the student and the institution.

Academic advising engaged students beyond their own views by acknowledging individual characteristics and motivations as students entered and exited from a college (Tinto, 2012). There is a positive association between a sense of belonging and the ability to manage

academic adjustment and grades (Hurtado, et al., 2007). The coach participants discussed how the coach needs to focus on the student as an individual and strike a balance between a personal connection and a coach. This individuality is what allows for deeper connections between the coach and the student and the connection is what instills a sense of belonging in the student.

Based on the coach and student pairings, the individuality of each student accounted for the variation in the type of meetings between the ACE coach and the student. As part of the research, five of the students were advisees to one of the five coaches interviewed. The researcher compared the interviews to find similarities in the types of answers received from the coach and student in their pairing. Most pairings discussed how interactions between the coach and the student are both academic and personal in nature, though other pairings mentioned how meetings were strictly academic. Overall, the perception of social support played a role in sense of belonging and the individual needs of the student drove the conversations. Almost all the pairings discussed how the coach guided the students and provided contacts and offered solutions to problems the student is facing. Per the National Academic Advising Association (2006), academic advising engaged students beyond their own world views, while acknowledging their individual characteristics, values, and motivations. When institutions address students' academic and social systems, it creates a strong relationship that plays a role in instilling feelings of a sense of belonging. As part of the process of pairing a coach and a student for the ACE program, the Student Success Manager for the ACE program matches a coach and a student who share similar hobbies and interests so there is compatibility between the coach and student. Some students discussed how they felt compatible and comfortable with their coach. Furthermore, some pairings expressed the individualized nature of the relationship and how it drove the conversation.

Theme 3: Connections Matter. Both student and coach participants stated the importance of connections within the institute. Mentoring provided meaningful connections that impacted the people involved and influenced their lives at home, at work, and in their communities (Mentoring.org, n.d). Students discussed how coaches gave them advice on who to go to for help and made the initial connection for them. Beyond informing students and better preparing them to grow at the institution, academic advising also gave students a personal connection to the college or university (Hanover, 2018). Based on the interviews, providing the connection and understanding referrals and offices guided the student and broke down any potential barriers to reaching their academic success, instilling feelings of a sense of belonging. Connectedness and integration were essential elements of student satisfaction, academic success, academic motivation, and retention (Freeman et al., 2007; Hanover, 2014; Jorgenson et al., 2018). The connectedness that the students discussed during the interviews is what played a role in developing feelings of a sense of belonging.

According to Vianden (2016), academic advisors acted as agents of student relationship management by strengthening the connection between students and their institutions to affect college retention. Student participants discussed how coaches have connections and resources that the coaches bring forth when guiding the student. Based on the student interviews, having a coach allowed the student to be reminded of what the student has access to and to ease the student's mind by connecting them with each other. Retention is a function of social integration and students who feel connected are more likely to persist (Burke, 2019).

Based on the interviews with the student participants, students discussed how not having a sense of belonging would be one influence that would lead a student to withdraw from college.

Abraham Maslow's Hierarchy of Needs ranked a sense of belonging third, behind the importance of basic physiological needs and safety. Belongingness referred to a human emotional need for interpersonal relationships, affiliation, connectedness, and being part of a group (Maslow, 1943). A connection to the institution is a key factor contributing to feelings of a sense of belonging. Strayhorn (2019) defined sense of belonging as a basic human need and suggested that it was related to students' perceived social support on campus, feelings of connectedness, and feelings of value and acceptance by others. Based on the coach participants, meetings between the coach and student as part of the ACE program impacted the students' desire to stay enrolled because the meetings allowed a student to be treated as a human being, which provided them that sense of belonging. Although the student and coach participants did not say that the ACE program directly provided them with a sense of belonging, their comments regarding open communication, connections, and relationships are aspects that play a role in feelings of sense of belonging. Sense of belonging was associated with academic motivation in college-level students (Karp & Stacy, 2013). Based on the student participant interviews, the coach provided advice and connected students with opportunities that the student was not aware of; for example, tutoring or financial aid availability. Students at four-year institutions who felt a stronger sense of belonging were more likely to utilize campus services, such as student advising and financial aid services. The student success program is an effort to provide strong services to ensure that all students can integrate on campus (Johnson, 2020).

Key Conclusions

Research Question 1

The first research question asked about the ACE participants' perceptions of the student success program in terms of supporting their efforts to develop a sense of belonging within the institution. Both participant interviews and the University Belonging Questionnaire (UBQ) answered this question. In relation to the UBQ, there were no significant correlations found, but students scored a median score of 3, which was "agree" for the overall score and each subscale - university affiliation, faculty and staff relations, and university support and acceptance. Most students expressed how the ACE coaches provided them with the resources and connections they need to guide them in the right direction, and these connections are what play a role in feelings of a sense of belonging. Students discussed how they were very compatible with their coach and how they felt they had someone to talk to and go to for guidance. Based on the perceptions of students, ACE coaching sessions allowed for a connection and individualized relationships.

As shown by Heisserer & Heisserer (2002), recommendations for college and university advisors included the need for a comprehensive plan that addressed aggressive advising. The ACE program is a form of aggressive advising since student GPAs are monitored to identify those students at risk, and the program provides an intervention for these students. The ACE program provides valuable information on topics that emphasize a sense of belonging. Other topics include goal setting, growth mindset, learning techniques, time management, and test taking skills. The program fosters a sense of belonging and a success-oriented mindset by offering an online academic success course and academic success activities. Additionally, the program encourages students to think critically and apply what they learn in the modules and

workshops that are a part of the program to achieve their goals. The program provides personalized support to address potential barriers to belongingness and to lead the student to reach their academic potential.

Research Question 2

The second research question asked about how the ACE program characteristics influence the students' sense of belonging. Both participant interviews and the UBQ answered this question. Quantitatively, the UBQ measured student belongingness which stemmed from student perceptions of valued involvement. Overall, students scored a median of 3, which agreed with the belongingness measures. As portrayed by the UBQ subscales, University Support and Acceptance (USA) measured perceived support relating to access to resources, since an individual's perception of feeling supported and accepted unconditionally by the university played a role in feelings of a sense of belonging (Slaten, et al., 2018). Student participants scored an average of 2.98 (agree) on this subscale, which was supported by the interviews when students expressed how ACE coaches provided them with the resources and connections that they needed to be successful. This connection is what plays a role in instilling feelings of a sense of belonging in the student. The qualitative data analyzed in this study indicated that faculty and staff play a critical role in facilitating ACE students' sense of belonging to the institution. In the interview questions, student participants overwhelmingly mentioned the open communication and connections the ACE coaches provided.

According to Paul and Fitzpatrick (2015), academic advisors' knowledge of degree requirements, as well as their approachability, produced strong relationships associated with advising and student satisfaction. Academic advisors created strong and ongoing relationships

with students and generated the opportunity to bind the students to the institution with someone who cared deeply about student success (Vianden, 2016). The ACE program requires that students meet with their coach a minimum of four times a semester. Furthermore, students must attend a minimum of one Student Success Workshop each semester and complete a minimum of three modules in an online platform per semester, which cover topics on sense of belonging. Students discussed how their ACE coach provided them with the opportunity to address their concerns and how the coach provided the needed support to connect the student to the university so that the student feels that they belong.

Research Question 3

The third research question asked about the ACE participants' perception of student success barriers that adversely affected their sense-of-belonging beliefs. This question was answered through participant interviews. Based on student participant interviews, barriers included financial issues, a drop in grades, workload, bad experiences within the institution, and personal issues, for instance, trouble at home, no support or help from their family, and feeling that college is not for them due to a lack of interest. Students expressed the importance of having the ability to interact with faculty and staff and developing relationships with faculty in their programs.

Multiple theories of college student retention and success congregate on the importance of student engagement and sense of belonging since relationships with faculty and staff directly influence students' withdrawals and departures from universities. The ACE program is a mentorship program, and mentorship impacts a student's academic success and the collaborative efforts of faculty and staff members to support student learning has an impact (Braxton et al.,

2000; Burke, 2019). By participating in the ACE program, students have an opportunity to be paired with an ACE coach who can provide the support to overcome these barriers and instill a sense of belonging.

Implications of the Study

The researcher found consistency with the theoretical models of student retention in terms of the importance of social spheres, which lead to developing a relationship with the institution. Part of this social dynamic includes providing support, as done through mentoring. The findings also confirmed that many of the student participants felt a connection to their ACE coach and meetings established effective relationships through guidance and support. The participating university trained the coaches to engage with and support different demographics, personalities, and characteristics and offered unique programming for the institutions' highly diverse population of students. In addition, institutions can focus on training coaches as part of a student success program to address the cultural aspects of students, including a focus on unconscious bias and diversity, equity, and inclusion. Furthermore, the participating university hired a student success manager whose main responsibility was managing the ACE program and other student success initiatives. An institution should consider such a position when implementing a student success program.

One of the steps an institution can take to improve a students' sense of belonging is data-informed, proactive advising, which includes tracking and being pro-active with early alerts when students may be in trouble. The institution used for this study noticed a drop in the six-year first-time freshmen graduation rate, and data revealed that every year a large cohort of first-year students who did not meet their scholarship GPA requirements dropped out at a very high rate

due to financial stress. Qualified students for the ACE program are those who at the end of their first two semesters do not have the requisite grade point average (GPA) to keep their merit scholarship, which could be an indication of the student lacking a sense of belonging. By monitoring students' GPA, the institution proactively identifies those students who are at risk for academic success. Though the participating institution implemented this program for undergraduate students in their sophomore year, institutions can consider aspects of this student success program for graduate students, including medical students, with a focus on connectedness and mental health. Furthermore, aspects of the ACE program, especially mentoring, should be part of an institution's strategic plan, along with curriculum development and other university renewal projects. From the perspective of instilling feelings of a sense of belonging in the student, this research strengthened the understanding that communication, connection, and individual relationships are key personal and professional components that enhance effective mentoring relationships.

Limitations

There were several limitations in this study, especially regarding the sample and methodology. First, while this study used mixed methods, the low sample size did not allow for statistically significant findings. Also, due to the sample size, findings may impact the generalizability of the results. This student success program runs at a specific institution; results cannot be generalized to higher education in different types of institutions with different student populations in different geographic areas.

This study was a case study and utilized a small sample size. An expanded collection of qualitative and quantitative data might have led to a deeper understanding of the phenomena of

belonging in ACE students compared to students not in the program, but the scope of the study was limited but sufficient to complete a case study.

Another limitation of this study involved how feelings of a sense of belonging differed among various ethnic groups of students. Since the sample size was small, no statistically significant findings existed among the various ethnic groups. A larger sample size of students would allow for conclusions to be drawn regarding diversity and feelings of a sense of belonging.

Recommendations

The results of this study have several implications for future research. This section details recommendations for research in the following areas: continued use of the UBQ to measure belonging in ACE students (particularly on a larger scale), a richer qualitative study into the phenomena of belonging from ACE students' perspective, a comparison of a sense of belonging between ACE students and students not a part of the ACE program, follow-up interviews, and a consideration of the overall effectiveness of the ACE program.

First, future studies replicating or expanding this study while continuing to use the UBQ to measure ACE students' belonging would help to confirm the findings that the tool measures belonging in ACE students and that students do experience some belonging to the institution. While the institution used for this study is representative of gender and ethnicity, future studies at other sites could provide opportunities for larger diverse samples, therefore addressing one of the limitations of this study. With continued study and testing, the UBQ could become a universal tool for measuring belonging in all university students and could indicate increased validity and reliability across populations through additional statistical analyses. Using a larger population of

ACE students may be beneficial for future research to further test any statistical significance in the data across a larger diverse group.

Additional qualitative studies focused on developing a deeper understanding of the phenomena of belonging in ACE students could be helpful in discerning the nuanced differences experienced related to belonging between students who are a part of the ACE program and those students who are not. This study revealed that there is a sense of belonging in the student participants based on their UBQ scores; however, comparing these scores to students not in the program would provide stronger evidence of whether the ACE program contributes to this sense of belonging.

Future studies involving exit interviews with those students who participated in the ACE program would be beneficial to obtain the perception of the students after the program and to compare how their responses may differ from while they were in the program. Furthermore, follow-up interviews can be conducted with those ACE students who participated in the study to gain an understanding of any effects on the students post-graduation. The follow-up interviews could be conducted a few years after graduation with those students who participated and ultimately graduated to discuss aspects of the program that have stayed with the student.

Analysis of the overall effectiveness of the ACE program is another recommendation for future studies. The program is a student success initiative that incorporates evidence-based components related to student persistence. Aside from sense of belonging, a part of the program has students participate in engagement activities to provide them with valuable information about goal setting, growth mindset, time management, test-taking skills, and learning techniques. Students also participate in activities using the learning center and the library and participate in

other workshops, including workshops about financial aid and career advisement. Studies can be conducted through various perspectives to rate the effectiveness of the program apart from a sense of belonging and how students who do not participate in the program compare to those who do participate.

Summary

This chapter presented a summary of the study, including these themes: communication matters, individualized relationships are key, and connections matter. The researcher explained the key conclusions by research question, along with more general implications of the study. Chapter Five cited this study's limitations, as well as suggestions for further research into belonging for both ACE and non-ACE students and recommendations for the use of belonging as a success metric for institutions to track and make decisions.

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Appendix A: IRB Approval



NOTICE TO ALL RESEARCHERS:

Please be aware that a protocol violation (e.g., failure to submit a modification for any change) of an IRB approved protocol may result in mandatory remedial education, additional audits, re-consenting subjects, researcher probation, suspension of any research protocol at issue, suspension of additional existing research protocols, invalidation of all research conducted under the research protocol at issue, and further appropriate consequences as determined by the IRB and the Institutional Officer.

TO:

Louisa Vida - Principal Investigator
Alexandra Cruz - Student Investigator

FROM: LIU Institutional Review Board

DATE: June 24, 2022

PROTOCOL TITLE: The Effect of a Discrete Higher Education Student
Success Program on Feelings of a Sense of Belonging

PROTOCOL ID NO: 22/06-081

REVIEW TYPE: Exempt

ACTION: IRB Exempt Determination/Approval

Your application has been reviewed using the University's Institutional Review Board's (IRB) administrative review process and can be considered to be an EXEMPT methodology/approach as defined in 45 CFR 46.104.d.12

:

Category 1: Research conducted in established or commonly accepted educational settings that specifically involves normal educational practices that are not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies and research on the effectiveness of or the comparison among instructional

techniques, curricula, or classroom management methods.

Category 2: Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: i. The information obtained is recorded by the investigator in such a manner that identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects, ii. Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation, or iii. The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subject, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Please note: Revisions and amendments to the research activity must be promptly reported to the IRB for review and approval prior to the commencement of the revised protocol. **If the project is amended so that it is no longer considered to be exempt research as per the federal definitions, it will be necessary for the investigators to submit an application for full committee review.**



Verification of Institutional Review Board (IRB) Exempt Determination/Approval

LIU IRB ID: 22/06-081

Project Title: The Effect of a Discrete Higher Education Student Success Program on Feelings of a Sense of Belonging

Appendix B: Interview Protocol for Coach Participants

The topic for this study will be to discuss the effect of a discrete higher education student success program on feelings of sense of belonging.

1. What do you like most about coaching students? What do you like least?
2. Approximately how many student advisees do you have?
3. What are your coaching philosophies, and how do you use these when coaching students in preparing them for an undergraduate program?
4. Do you feel like you understand course requirements, both for courses in General Education requirements and within the areas of the students' program of study?
5. What do you consider as a coaching barrier in your current role as an academic advisor?
6. Tell me what you consider to be effective coaching strategies to promote student success as an academic advisor
7. Describe a coaching session, if applicable, where you felt the meeting with a student was unsuccessful.
8. Do you feel your role as a coach is to help students in areas outside of academics, such as a student's personal life?
9. Do you feel a coach and student relationship within a college institution can impact a student's desire to stay enrolled in a degree program?
10. Do you feel administration supports your needs as coach at your institution? Do you consider this a barrier or a strategy in your academic advising duties?

Conclusion and Wrap Up

Please feel free to add any additional comments (dialogue) to what you consider effective academic advising strategies and what barriers you may see from a coach perspective that may prevent effective academic advising. We have come to the end of our interview questions today. Thank you for your participation.

Soden, S. R. (2017). Perceptions of academic advising and student retention (Publication No. 10637689) [Doctoral dissertation, Lindenwood University]. ProQuest Dissertations Publishing.

Appendix C: Interview Protocol for Student Participants

The topic for this study will be to discuss the effect of a discrete higher education student success program on feelings of sense of belonging.

1. What is your program of study?
2. How often do you meet with your ACE Coach each semester?
3. Describe a typical coaching session if applicable, where you felt meeting with a coach was unsuccessful.
4. What suggestions would you give a coach on what you consider to be effective strategies to promote student success?
5. Tell me about a coaching experience that you considered to be negative to your learning experience in college?
6. How much consideration is given to a student's schedule and needs when setting times to meet with your coach?
7. In your opinion, name two things that would lead a student to withdraw from college.
8. Do you feel like your coach has helped you in areas outside of college, to include personal areas of your life?
9. Do you feel your coach has provided you the resources you need to be successful in your program of study?
10. How do relationships in a college institution impact a student's desire to stay enrolled or withdraw?

Conclusion and Wrap Up

Please feel free to add any additional comments (dialogue) to what you consider effective academic advising strategies and what barriers you may see from a student perspective that may prevent effective academic advising. We have come to the end of our interview questions today. Thank you for your participation.

Soden, S. R. (2017). Perceptions of academic advising and student retention (Publication No. 10637689) [Doctoral dissertation, Lindenwood University]. ProQuest Dissertations Publishing.

Appendix D: University Belonging Questionnaire (UBQ)

Below is a list of statements that may or may not be true about your experience at college. Please indicate your level of agreement with each statement using the responses provided. Think carefully and respond honestly as there is no “wrong” answer. (1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree)

1. I feel that a faculty member has valued my contributions in my courses
2. My university online environment provides me an opportunity to grow
3. I have university branded material that others can see (pens, notebooks, bumper sticker, etc.)
4. I tend to associate myself with my school
5. I would be proud to support my university in any way I can in the future
6. I believe there are supportive resources available to me on campus
7. My university provides opportunities to have diverse experiences
8. One of the things I like to tell people about is my college
9. I am satisfied with the academic opportunities at my university
10. I have found it easy to establish relationships at my university
11. The university I attend values individual differences
12. I feel “at home” on campus
13. I attend and/or follow university sporting events in order to support the university
14. My university provides opportunities to engage in meaningful activities
15. I feel similar to other people in my major
16. I believe I have enough academic support to get me through college
17. I feel connected to a faculty/staff member at my university
18. I feel a sense of pride when I meet someone from my university off-campus
19. My cultural customs are accepted at my university
20. I am proud to be a student at my university
21. I believe that a faculty/staff member at my university cares about me
22. I take pride in wearing my university’s colors
23. I feel that a faculty/staff member has appreciated me
24. I feel like I belong to my university when I represent my school off-campus

Source: Slaten, C. D., Elison, Z. M., Deemer, E. D., Hughes, H. A., & Shemwell, D. A. (2018). The development and validation of the University Belonging Questionnaire. *The Journal of Experimental Education*, 86(4), 633–651.

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