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Assessment Of A Peer Mentoring Program At Lawson State Community College

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ASSESSMENT OF A PEER MENTORING PROGRAM AT LAWSON STATE
COMMUNITY COLLEGE

by

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A DISSERTATION

Submitted to the graduate faculty of The University of Alabama at Birmingham,
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy

BIRMINGHAM, ALABAMA

2018

ASSESSMENT OF A PEER MENTORING PROGRAM AT LAWSON STATE
COMMUNITY COLLEGE

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UNIVERSITY OF ALABAMA AT BIRMINGHAM SCHOOL OF PUBLIC HEALTH,
DOCTOR OF PHILOSOPHY IN HEALTH EDUCATION AND HEALTH
PROMOTION

ABSTRACT

Colleges and universities have begun implementing mentoring programs to offset
rising attrition rates; however, the literature on the benefits of these programs is limited
particularly among community colleges with peer mentoring programs serving minority
students. Further limiting our understanding of post-secondary peer mentoring programs is
the lack of research on mentor's as well as mentee's perspectives on the mentoring
experience. As mentors and mentees serve in a variety of capacities within the mentoring
program, it is often difficult to identify outcomes that can be assessed within the mentoring
program. Although the success of peer mentoring programs is directly affected by the
mentor/mentee relationship, it is not so clearly understood how the various characteristics
of the mentoring relationship play a role in the outcome of the mentoring program.
Furthermore, there is scarcity in the literature concerning the mentoring relationship for
underrepresented populations who endure special challenges in their post-secondary
education. It is important to understand the mentoring relationship from the perspective of
underrepresented populations both as mentees and mentors.

To address these gaps in the literature, this dissertation focuses on studying the peer
mentoring relationship in a community college from the perspective of underrepresented

mentors and mentees. It includes (1) an in-depth examination of the literature on mentoring programs at institutions of higher education; (2) a mixed methods study examining the relationship between mentor training and support, mentoring activities, self-efficacy and the perceived relationship quality (PRQ) in a peer mentoring program at a community college with mentors (second year students) and mentees (first year students) via surveys (9 mentors and 51 mentees), focus groups (two focus groups with mentors (n=7, n=2) and one with mentees (n=5)), and in-depth interviews (n=3); and (3) the lessons learned from implementing a peer mentoring program at a local community college and applications for future peer mentoring programs.

Findings from the mixed methods study indicate that there is a positive association between mentee eight-month PRQ and six and eight-month mentoring activities and between mentee eight-month PRQ and self-efficacy. Additionally, there was a positive association between mentor eight-month PRQ and six and eight-month mentor training and support. It was also significantly associated with mentor PRQ at six months. The qualitative analysis findings suggest multiple factors that may affect the mentor/mentee relationship, such as time, communication and participation, patience, and having an open mind. These findings may inform future studies on effective strategies when implementing mentoring programs for underrepresented populations on college campuses.

DEDICATION

God blessed me with two beautiful little girls who push me beyond what I thought was ever possible. I dedicate this dissertation to them because they have sacrificed so much over the years unknowingly for me to further my education and complete this body of work. To them, I owe everything. I also dedicate this to my loving mother, father, and stepfather who have been the bright light along my path to success. I only hope I can become the person you have inspired me to be.

ACKNOWLEDGMENTS

This dissertation has been a labor of love and hate that could not have been completed without the help of my gracious committee members. A special thanks to Dr. Robin Gaines Lanzi who has served as a phenomenal mentor throughout my time in the doctoral program. She has challenged me intellectually on numerous occasions and ultimately served as a confidante in my sullen moments. She welcomed me in the program with open arms, and I will never forget her willingness to help me with any need as I progressed. When others doubted me, Dr. Lanzi provided me with the support I needed and also went beyond the requirements set to offer me opportunities that will forever enrich my career. When I prepared to defend in March, she stayed on the phone with me while visiting her mother who had just had surgery, traveling to her son's basketball game, and many other times that impeded on her personal responsibilities. To her, I am forever grateful.

I also want to thank Dr. Kohler who spent countless hours looking over my dissertation. Oftentimes, these meetings were held on Fridays when most staff and faculty rush to get home to celebrate the weekend. Nonetheless, Dr. Kohler was faithfully in attendance where she provided me with insightful suggestions and critiques to help me through one of the most important milestones of my life. She was dedicated through this process and would continuously ask me whenever she saw me in the hallways if I needed any additional assistance. She helped me become a better writer and also challenged me think about results in meaningful way to be able to make an impact in the future. I was so fortunate to have her as a member of my committee.

Additionally, I want to thank Dr. Jennifer Lefever for taking the time out her day consistently to answer my endless questions about my data analyses. She made sure that my statistical analyses were appropriate and offered me ongoing guidance whenever I drew a blank on next steps. As a primary mixed-methods dissertation, she was encouraging when I realized I would not have as much data as I originally thought. During this period, she worked with me to identify the best methods possible to move forward. I also want to thank Dr. Dustin Long for allowing me at very short notice to come and talk with him about some last-minute data issues I was having. He patiently discussed how to rearrange my tables to provide the best snapshot possible. He also took the time to read through my data analyses section, so he could offer additional advice to set me up for success. Thanks to both of your efforts, I am no longer intimidated by the term "biostats".

I also want to thank Dr. Kristi Carter Guest who provided me with additional feedback on ways to improve my dissertation as I was progressing through the process. At the onset, she provided critiques that helped shaped my overall dissertation. Additionally, I appreciate her fondness of how important qualitative research is to solving real issues around the world. I also want to thank Dr. Susan Davies who has always been supportive throughout this process. I appreciate her confidence in my skills as a student and allowing me to choose my own course while providing feedback when necessary.

Lastly, I want to thank my family and friends who have integrally played an important role in who I am today. During this process, I was not able to be as available as I typically am. I missed important phone calls, birthdays, and events, while trying to advance academically, but they continued to support me along the way. To my best friend, Rufus Lymon, there are many trips, meetings, and events   I would not have been able to

attend without you. Your assistance has never gone unnoticed. You have and always will be an important person in my life. To my sisters and brothers, Kenesia Peterson, Tyeasia Washington, William Carter, and Lamar Washington Jr., thank you for supporting me as I embarked on degree after degree. To my daughters, I pray that you are able to better women because of me. I pray that you never forget who you are, and the importance of being humble throughout every experience you embark upon – you are absolutely amazing, and perfect in my eyes. I would not have made it this far without you. To my parents and stepfather, Angela Franklin, Lamar Washington, and Karl Franklin, thanks for making me who I am today. Thanks to Colonel Steven Garner for seeing the "special" in me as a freshman cheerleader at Murphy High School – you changed my life. Thanks to each and every one of you. I love you dearly.

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CHAPTER 1

INTRODUCTION

The United States spends three times more on higher education than do many other industrialized countries (U.S. Department of Education National Center for Education Statistics, 2017a). Between 2014 and 2015 alone, postsecondary institutions spent $536 billion on education, with more than 20% of expenses attributed to student services and academic and institutional support (U.S. Department of Education National Center for Education Statistics, 2017b). In 2003, four-year colleges received $240 million in state grants and another $270 million in federal student grants for students who did not return to the same college the following year (U.S. Department of Education's Integrated Postsecondary Education Data System, 2008). Moreover, states also invest in student success, spending more money on higher education than the federal government. Alabama ranked 18th in state money spent on first-year dropouts ($171,420,000) and 15th on how much federal student aid was spent on first-year dropouts ($34,400,000) (U.S. Department of Education's Integrated Postsecondary Education Data System, 2008). Despite increased investments in the education system, disparities in college success among minority students persist.

Vast differences can be found in college success between different ethnic and racial groups, particularly for minorities (Dale & Krueger, 2011). Although receiving a college degree has been linked to numerous benefits, including better health, jobs, and salaries,

disparities in college entry between different ethnic and racial groups, particularly families with low to moderate income, have persisted for decades and widened over time (Bailey & Dynarski, 2011). According to Cahalan, Perna, Tamashita, Ruiz & Franklin (2016), first-generation college (FGC) students—students whose parents did not attend or graduate from college—are significantly less likely to attend a college compared with students who have at least one parent with a college degree. Moreover, even if a FGC student makes it to a college campus, he/she is still less likely to make it to graduation due to a variety of reasons including less encouragement and support from family, poor academic preparation, fewer resources to pay for college, lower educational aspirations, and difficulties adjusting to the academic, social, and cultural norms of the college or university (Engle, Bermeo, & O'Brien, 2006). These difficulties adjusting to colleges or universities, and their linkage to attrition, have become an increasing area of concern among postsecondary institutions.

Increasing attrition rates among college students continues to be an issue among community colleges and universities, since over 25% of students do not return to the same college the following year (U.S. Department of Education, National Center for Education Statistics, 2016). More importantly, minority students face disproportionate attrition rates compared with their white counterparts. According to the U.S. Department of Education's National Center for Education Statistics (2006), more than two-thirds of African American males leave college before completing their degree, contributing to the highest attrition rate among all races and genders. High attrition rates have a myriad of consequences in higher education, including lack of diversity among students, lower job attainment, and lack of diversity among potential university staff and personnel. In fall 2015, full-time faculty

members at degree-granting postsecondary institutions were 77% White, 10% Asian/Pacific Islander, 6% Black, 4% Hispanic, and 1% or less two or more races and American Indian/Alaska Native (U.S. Department of Education, National Center for Education Statistics, 2017a). This lack of diversity can exacerbate the issue of attrition among minority students, particularly at predominantly white institutions where students may have a hard time adjusting to the culture and feel socially isolated. In turn, minority students may feel they have no one to turn to for additional assistance with academics, professional endeavors, and other issues that may arise.

Creating the appropriate interventions to decrease minority attrition rates involves an intricate approach focused on identifying various factors contributing to a student's collegiate success. Several factors have been proposed, including providing a comprehensive mentoring support system (Hernandez et al., 2017; Schwartz, Kanchewa, Rhodes, Cutler, & Cunningham, 2016). Research suggests established relationships between university personnel and students are key to a student's success (e.g., social integration, academic outcomes) in institutions of higher education (LaVant, Anderson & Tiggs, 2002). Moreover, establishing healthy relationships with adults and peers serves as a protective factor for minorities at high risk for academic failure (Bergin & Bergin, 2009). It is through these relationships that students feel more connected to their university or college and more confident in seeking the resources they need to successfully attain a degree (Lavant, Anderson & Tiggs, 2002). With attrition rates on the rise, multiple universities, colleges, and community colleges have sought to decrease minority student attrition rates by creating or improving the existing structure of their mentoring base.

Background of the Dissertation

Mentoring programs can be traced back three millennia in works such as Homer's *Odyssey,* Mary Shelley's *Frankenstein,* and Shakespeare's *Much Ado About Nothing* (Eby, Rhodes & Allen, 2007; DuBois & Karcher, 2005) and can be defined as a "supportive relationship between the student and another person of greater ability and experience" (Topping 1996, p. 321). Currently, a mentoring program can generally use one of four models: (1) traditional one-to-one; (2) peer mentoring; (3) electronic or e-mentoring; and (4) group or team mentoring. Traditional one-on-one mentoring is prevalent within community, university, and college settings in which an adult or older youth mentors a younger mentee (Timmons, Mack, Sims, & Wills, 2006). This type of model is used in university settings such as Ferris State University where first-year students are paired with older peers to help them academically, and socially (Ferris State University, 2018). Peer mentoring is an approach that involves peers who share similarities mentoring each other; it can be utilized within colleges, universities, communities, and workplace settings (Timmons, Mack, Sims, & Wills, 2006). This model is used in university peer-mentoring programs, such as the Resources Inspiring Student Excellence (RISE) Peer Mentoring Program in which peers are mentored by each other and meet up when time permits (University of Mary Washington, 2018). Electronic mentoring utilizes email communication as the primary method of interaction between mentors and mentees and is more prevalent in settings where flexibility and time commitments are limited (Timmons, Mack, Sims, & Wills, 2006). This particular model is used most often in school settings, where a classroom of students is matched with an individual within an organization (Timmons, Mack, Sims, & Wills, 2006). An example of this type of mentoring is the

eMentoring program developed between The Georgia STEM Accessibility between the University of Georgia Alliance and the Georgia Institute of Technology. By using an eMentoring platform, the program focuses on enhancing the achievement of people with disabilities in STEM education and careers (Todd, Moon & Langston, 2016). Group mentoring has become a popular method because it requires fewer resources. Within this model, an older individual is matched with two or more younger mentees and conducts activities within group settings (Timmons, Mack, Sims, & Wills, 2006). Group mentoring focuses on peer interaction, resulting in the formation of less-connected bonds between them and their mentors, but has shown to be beneficial in boosting academic performance and attitudes (Herrera, Vang, & Gale, 2002). This type of mentoring can be found at universities such as the Women's Group Mentoring Program at the University of Canberra. The program aim is to assist women in developing their career (Johns, 2012). This model has become more apparent as postsecondary institutions strive to cut impending education cost (Timmons, Mack, Sims, & Wills, 2006).

Mentoring has been associated with the successful transition of students from high school to college campuses. In general, college mentoring is tailored to helping students feel more connected to the campus—in turn, increasing positive student outcomes, such as increasing academic achievement, reducing dropout rates and risky behaviors, fostering career development, and promoting positive self-image (Community College Survey of Student Engagement, 2009; Dubois, Holloway, Valentine, & Cooper, 2002; Pascarella & Terenzini, 1979). In a study conducted by Asgari and Carter (2016), all 37 introductory psychology students at a private institution in the Northeast were paired with a mentor to help them with the course. The control group consisted of 36 introductory psychology

students in another class. Students in both classes were similar in demographics, as well as in previous exposure to psychology classes. The researchers used a quasi-experimental design to randomly assign peer mentors to one of the two psychology courses. The scores from four exams were recorded throughout the semester. Results indicated there was a significant difference between exam scores, with the mentored group performing significantly better on exam four. There was also a significant difference found among mentored and non-mentored students' final course grades, with mentored students performing significantly better (Asgari & Carter, 2016).

Mentoring relationships within academic settings have also been shown to foster career, emotional, and social support, resulting in positive academic and personal outcomes (Johnson, 2006). Jacobs, Atack, Ng, Haghiri-Vijeh, and Dell'Elce (2015) conducted a study of first-semester international and minority nursing students who were paired with mentors to decrease attrition and increase performance. Among full-time students who participated in the mentoring program, 76% successfully completed the semester compared with 36% completion among students who did not participate in the mentoring program (Jacobs, Atack, Ng, Haghiri-Vijeh, & Dell'Elce, 2015). Although the mentoring program showed various successes, there were a number of challenges, such as mentor workload, ongoing communication issues, and schedule conflicts (Jacobs, Atack, Ng, Haghiri-Vijeh, & Dell'Elce, 2015). With college enrollment increasing particularly among underrepresented, such as African Americans and Hispanics, it is increasingly important to identify effective evidence-based mentoring programs to promote college success (Bailey & Dynarski, 2011). In another study, Wallace, Abel, & Ropers-Huilman (2000) conducted interviews with participants in a federal TRIO program, designed to support students from

low-income backgrounds, those with a disability, and first-generation college students, identified formal mentoring as an asset to impacting students' satisfaction, motivation, and decisions to attend and to persist in postsecondary education.

Nationally, colleges and universities have been diligent in identifying programs to mitigate attrition, to promote access to campus resources, and to build individual self-esteem by providing a support system for students (Institute for the Study of Opportunity in Higher Education, 2012). Despite the benefits of mentoring, programs have become ambiguous with research lagging in critical areas (Gershenfeld, 2014; Jacobi, 1991). A review of the literature conducted by Jacobi (1991) found key concerns with mentoring programs that included: (1) lack of a clear definition; (2) lack of theory; and (3) and weak methodologies. Additional concerns included the creation of programs with no defined antecedents, outcomes, characteristics, or mediators of mentoring relationships (Jacobi, 1991).

Mediators of mentoring relationships, such as quality and duration, are important factors to positive outcomes (e.g., academics, relationship persistence) (Rhodes, Spencer, Keller, Liang, & Noam, 2006). Moreover, three processes have been deemed to effect mentees throughout the mentoring process by: (1) enhancing the mentees' social relationships and emotional well-being; (2) improving cognitive skills via instruction and conversation; and (3) promoting positive identity development (Grossman, Roffman & Rhodes, 2002). However, these outcomes are diminished with almost 50% of mentoring relationships ending prematurely due to mentors feeling ineffective and frustrated when mentees do not take their advice on how to handle situations the mentee may be experiencing, and when mentors feel they are matched with a mentee who has issues the

mentor does not have experience handling (Grossman & Rhodes, 2002). Interventions that focus on creating programs conducive to fostering necessary relationship qualities in both mentors and mentees are important to creating long-term beneficial relationships. These long-term relationships have been shown to be more effective on mentee and mentor outcomes (Dubois et al., 2002). Grossman and Rhodes (2002) insist on evaluations focused on identifying mentor relationship qualities that establish longer relationships and more positive outcomes for mentors and mentees. Studies have identified potential positive characteristics intrinsic to mentors that aid in successful mentor/mentee relationships. Crisp and Cruz (2009) conducted a literature review and identified the following beneficial traits: ability and willingness to commit time, matching mentors and mentees in gender and race, university experience, academic achievement, prior mentoring experience, communication skills, supportiveness, similar program of study with the mentee, trustworthiness, empathy, enthusiasm, personality match, and flexibility. These results indicate the importance of assessing qualities of the mentor-mentee relationship to foster student success.

Most of the literature on college mentoring has focused on mentoring programs among undergraduates at four-year universities (Atkins & Williams, 1995; Rodger & Tremblay, 2003; Strayhorn & Terrell, 2007). Novel approaches to mentoring research have focused on beneficial characteristics from the mentor's viewpoint (e.g., quantitative and qualitative mentoring outcomes (Carlson & Single, 2000; Reddick, 2006)). In recent years, research has broadened to focus on different types of students, including minorities and first-generation college students (Crisp & Cruz, 2009; Faison, 1996); however, the need for more research in this area is pertinent to identify what works among these students

(Crisp & Cruz, 2009). Mentoring for minority students to date have focused on retention, graduation rates, and the educational environment (Pagan & Edwards-Wilson, 2003; Sorrentino, 2007). The overall findings of these studies have been positive, indicating a positive impact of mentoring on student persistence and/or grade averages (Pagan & Edwards-Wilson, 2003; Freeman 1999). Some studies have resulted in conflicting data to include positive effects on mentee grades but not on retention (Rodger & Tremblay, 2003). Strayhorn and Terrell (2007) found that mentoring had a positive effect on African American students' satisfaction with college, but no significant effect was found on their satisfaction with engaging in the mentor relationships.

Although there has been a significant improvement in mentoring research, nearly all the approaches to mentoring to date have focused on four-year universities. (Crisp & Cruz, 2009). Additionally, this research focuses on the benefits of the mentoring program to mentees rather than mentors and does not specify the characteristics of a mentor relationship that provide a positive relationship quality for both mentor and mentee. Moreover, the results of these studies are not generalizable to students attending community and for-profit colleges or technical schools. As such, this dissertation fills a major gap in the literature by (1) focusing on mentoring in a community college (2) assessing the benefits of the mentoring program from the mentor's perspective as well as the mentee's perspective; (3) exploring the characteristics of the mentor-mentee relationship that may provide a positive experience for both mentor and mentee; and (4) focusing on mentors and mentees from an underrepresented population. In this dissertation, we examine peer mentoring and mentor/mentee perceptions of relationship quality among

first-year undergraduate students as well as upperclassmen at Lawson State Community College (LSCC) community college in Jefferson County, Alabama.

Purpose of the Dissertation

The purpose of this dissertation is three-fold (1) to provide an in-depth examination and synthesis of the literature on mentoring programs among institutions of higher education, (2) to examine the relationship between mentor training and support; mentoring activities; self-efficacy and the perceived relationship quality (PRQ) in a mentoring program at a community college serving an underrepresented population, and (3) to provide an overview of the lessons learned from implementing a mentoring program at a local community college. This peer mentorship program was implemented with first-year LSCC students who previously graduated from a Jefferson County or Birmingham City high school located in Alabama. LSCC's student body is mainly composed of African Americans, an underrepresented population as defined by the National Institute of Health (National Institute of Health, 2018).

Significance of the Study

Mentoring programs are becoming more popular within academic settings to decrease attrition rates among college students; however, these programs oftentimes conclude early due to mentor/mentee dissatisfaction with their match relationship (Grossman & Rhodes, 2002). Match relationships that end prematurely have been shown to decrease positive program effects and can cause mentors and mentees to lose interest in participating in future programs (Grossman & Rhodes, 2002). Although research has shown the importance of mentoring programs, more research is necessary to identify more

effective mentoring practices, such as boosting relationship quality among matches to foster student success (Nakkula & Harris, 2010). Improved relationship quality can result in longer, fulfilling mentor/mentee relationships; more effective mentoring programs; and better participant outcomes (Karcher, Nakkula & Harris, 2005). For this study, we focus on a holistic approach to implementing a peer mentoring program. This approach examined peer mentoring and its effects among first year undergraduate students (mentees) and second year students (mentors) at Lawson State Community College (LSCC). This research is unique because there has been little research on mentoring programs in community college campuses.

Definition of Terms

Group mentoring. Group mentoring is characterized by one or more adults mentoring two or more youth in small group settings. This relationship is more focused on peer-to-peer interaction (Timmons, Mack, Sims, Hare, & Wills, 2006).

Honeymoon effect. The honeymoon effect occurs during the initial stages of the mentor/mentee relationship. This period is characterized by excitement and social desirability, where the mentee and mentor desire to please each other and may have unrealistic expectations of the relationship (Nakkula & Harris, 2005).

Mentoring. "Mentoring as a function of education institutions can be defined as a one-to-one learning relationship between an older person and a younger person that is based on modeling behavior and extended dialogue between them" (Lester & Johnson, 1981, p. 119).

Perceived relationship quality. Perceived relationship quality is how the mentor and mentee participants characterize their mentoring relationship (Karcher, Nakkula, & Harris, 2005).

School-based mentoring program. School-based peer mentoring programs involve older students mentoring younger students. The goal in this setting is to utilize the mentor experiences and knowledge as a resource for mentees (Timmons, Mack, Sims, Hare, & Wills, 2006).

CHAPTER 2

REVIEW OF THE RELATED LITERATURE

College attrition rates have become a growing concern among institutions of higher learning. Attrition refers to the "departure from all forms of higher education prior to completion of a degree or other credential" (Johnson, 2012) and often sets the standard for institutional and student success (Voigt & Hundrieser, 2008). To offset high attrition rates, multiple fields—including business, management, higher education, and psychology—have begun implementing mentoring programs to better prepare students to attain a degree (Crisp & Cruz, 2009; Jacobi, 1991). Although the consensus is that mentoring results in positive relationships, research is very limited on its effects on mentors and mentees (Karcher, 2005; Nakkula & Harris, 2010). Oftentimes, the programs have different definitions for mentoring, lack basic theory application, and are not cohesive in program implementation, creating replicability concerns (Crisp & Cruz, 2009; Gershenfeld, 2014; Jacobi,1991).

Mentoring is not a new phenomenon, with its origins in Greek mythology. In Homer's *Odyssey,* Odysseus trusted "Mentor" to watch over his home and son while he was away at war (Homer & Fitzgerald, 1990). During this time, Mentor served as a positive relationship in his life (Homer & Fitzgerald, 1990). Additionally, works such as *Frankenstein* and *Much Ado About Nothing* further characterize the nature of the mentor

*(*Shakespeare & William, 2005). Early studies have also provided a foundation for mentoring. Within the management field, Kanter (1977) correlated having a mentor with an increase in the likelihood of success in the field. Within the adult development field, *The Seasons of a Man's Life*, provided examples of the many roles mentors play within relationships (Levinson & Darrow, 1979).

Jacobi (1991) was the first to conduct a literature review on mentoring across multiple fields. Within her work, she discussed mentoring functions and roles, characteristics of mentor/mentee relationships, mentoring definitions, the link between mentoring and undergraduate academic success, prevalence of mentoring in higher education, research design and measurement issues, theoretical models of mentoring, and recommendations for future mentoring programs. Her synopsis of the literature concluded that mentoring is imprecise and unclear, and the effect it has on academic success is assumed rather than demonstrated in the literature. She stressed the importance of more research focused on how prevalent the phenomenon is, the nature of mentoring relationships, and specific characteristics of the mentor/mentee relationship. Additionally, she identified the need to evaluate mentoring programs effectively, conduct qualitative and ethnographic research to clearly understand the development and nature of the mentoring relationship, and establish a clear link between mentoring and academic success. More than two decades later, these concerns still plague mentoring research.

This chapter provides a brief overview of the literature on mentoring in higher education institutions and focuses on definitions of mentoring, the use of theory in mentoring approaches, benefits of mentoring programs, mentoring in academic settings,

mentoring minority students, mentoring challenges, the elements of effective practice for mentoring, and implications and conclusions.

Definitions of Mentoring

One of the main issues identified in mentoring research is the lack of a universal definition in the application of programs. According to Jacobi (1991), "variation in operational definitions continues to plague mentoring research and has almost certainly devalued the concept for application in 'hard' research" (p. 508). More than two decades later, the concept of mentoring is still unclear. In a more recent literature review, Crisp and Cruz (2009), identified more than 50 definitions associated with mentoring and concluded the need for a clearer definition in the field. Expanding upon the earlier work of Jacobi (1991), Table 1 identifies multiple definitions in the literature on mentoring. As evident in the definitions, mentoring continues to be a vague concept that results in less efficient and scientifically rigorous programming (Jacobi, 1991; Crisp & Cruz 2009; Gershenfeld, 2014; Crisp, Baker, Griffin, Lunsford, & Pifer, 2017).

Use of Theory and Frameworks

Similar to concerns about the lack of concise definitions, the use of theory and/or conceptual frameworks in mentoring programs is oftentimes non-existent or varies depending upon the type of program being implemented. Expanding and summarizing the previous work of Jacobi (1991), Crisp & Cruz (2009), Gershenfeld (2014), and Crisp, Baker, Griffin, Lunsford, and Pifer (2017), Table 2 identifies some functional frameworks utilized in mentoring research and Table 3 outlines some of the process-oriented frameworks associated with mentoring literature. Within functional frameworks,

researchers base their program goals and outcomes on conceptualizations in the literature (Crisp, Baker, Griffin, Lunsford, and Pifer, 2017). These frameworks provide a basis for how to implement specific components of the mentoring program, such as fostering successful relationships, identifying specific noteworthy action steps to boost participant engagement, and pinpointing the necessary components of progressive mentor/mentee relationship; however, the frameworks lack guidance on clear hypothesis-driven outcomes (Jacobi, 1991; Crisp, Baker, Griffin, Lunsford, and Pifer, 2017). The process-orientated frameworks provide a structure for the mentoring program to be successful by identifying the various competence levels of mentors, phases of the mentor/mentee relationship, and mentor behaviors that effect the relationship, as well as organizational components necessary to implement effective mentoring programs; however, these frameworks are loosely applied in mentoring programs including higher education (Crisp, Baker, Griffin, Lunsford, & Pifer, 2017).

Mentoring and Higher Education

The benefits of mentoring in higher education settings are multifaceted and include: (1) improving academic performance (Nora & Crisp, 2008); (2) providing mentees with qualities, commitments, and skills important to success (Erkut & Mokros, 1984); (3) promoting collegiality and networking (Ehrich, Hansford, & Tennent (2004); and (4) providing a method for recruiting and retaining minority students (Canton & James, 1997). Most of the literature on mentoring provides benefits for the mentee, but mentors are oftentimes impacted as well. For example, Ehrich, Hansford, and Tennent (2004) identified the most common positive mentor and mentee outcomes in 159 educational studies: reflection, professional development, personal satisfaction, collegiality, encouragement,

helping with teaching strategies, sharing ideas, and positive reinforcement. Although the outcomes were cited more frequently by mentors, mentees reported reflection and professional development as beneficial outcomes in 15.1% and 13.8% of studies respectively.

Additionally, multiple studies have examined mentoring in higher education and its effects on the mentor and mentee. Rodger and Tremblay (2003) examined the effectiveness of a yearlong mentoring program for first-year university students assessing retention and achievement outcomes. A total of 983 students participated in the program; 537 students were randomly selected to participate in the peer-mentored group. The rest of the students (n=446) were randomly assigned to a control group. Both the control and peer-mentored groups were assigned based on self-identified levels of motivation: low, moderately low, moderately high, and high. An additional control group was comprised of first-year students who did not apply to the program (n=506). Students who participated in the peer mentor group were assigned a mentor who maintained contact with them weekly; they were instructed to help students with academic challenges and share their own experiences as first-year students. The results of the study indicated no effect on retention and grades for all participants throughout their undergraduate careers; however, there were differences based on anxiety and achievement. Students in the peer mentor group with high anxiety exhibited achievement levels similar to the low-anxiety mentor program participants, whereas, high-anxiety students in the control group scored significantly worse on achievement.

In another study conducted by Fox, Stevenson, Connelly, Duff, and Dunlop (2010), researchers examined the impact of a student peer-mentoring program on first-year

undergraduate accounting students' academic performance. In this mentoring program, third-year students served as mentors for first-year students. The mentors were trained in academic writing, coursework, examinations, and general study skills that were translated to their respective mentees. Two third-year mentors were then matched up with six first-year students. The expectation of the program was that participants meet weekly over a six-week period to discuss issues within the mentees' first year of college. Data analysis included the pre-survey results from 147 first-year students and 86 third-year students and post-survey results for 112 and 72 students respectively. The program results indicated students who participated in the mentoring program had higher academic achievement and less decline in deep and strategic approaches to learning compared with those who did not participate in the program.

Goff (2011) examined the effectiveness of a peer mentoring program on first-year student's success in an introductory biology course, as well as their adjustment and transition to university education. Upper-level students who had recently taken the biology course served as mentors. Peer mentors were tasked with designing 50-minute peer-mentoring sessions focused on effective study strategies and issues related to their first-year experience. The data included academic and attendance records for 1,474 students and survey responses from 1,192 of them. Results indicated that students who participated in three or more sessions performed significantly better in their biology courses compared with those who attended fewer sessions. There was no significant effect seen for students' postsecondary transitions or on program selection preferences.

Evident in these studies is the varied success of mentoring programs within higher education. Although some programs exhibit successes, others may not. Moreover, each

study varies with respect to the role of the mentor. Some mentors assume the role of mentoring one mentee whereas others participate in a form of group mentoring where they are tasked with mentoring multiple students. Some programs provided their mentors with training opportunities and others did not. These differences highlight the six standard characteristics of mentoring programs (recruitment, screening, training, matching and initiating, monitoring and support, and closure) and the impact these standards have on program success (see Table 4).

<div align="center">Mentoring Minority Students within Higher Education Settings</div>

Mentoring programs, regardless of students' minority status, are often lumped together when determining program success, efficiency, and beneficial components of the mentoring relationship; however, mentoring programs for minority students are oftentimes different from mainstream programs due to the unique needs of their students (Fries-Britt & Snider, 2015; Deas, 2017; Haeger & Fresquez, 2016). Minorities typically fare worse than others in educational attainment, are first-generation college students, and have a higher dropout rate (Swail, Redd & Perna, 2003). Crisp and Cruz (2009) found that minority students who were paired with mentors in college were twice as likely to stay in school and had higher GPAs compared with those who did not have mentors. Additionally, Swail, Redd, and Perna (2003) identified four critical junctions to increase the rate of minority students in attaining a bachelor's degree: (1) providing the necessary resources to promote academic preparation for college in high school settings; (2) increasing the high school graduation rate; (3) increasing the rates of college enrollment; and (4) providing resources to increase persistence in college to bachelor's degree completion. One method to increase persistence among college students is mentoring.

Kosoko-Lasaki, Sonnino, and Voytko (2006) assessed the benefits of the Pipeline to Success Program at Creighton University, which provided counseling, mentoring, and group support for academically and/or financially disadvantaged students. The students met informally on a weekly basis and formally every two months with mentors. Mentors were older students and faculty. During the support groups, students discussed academic concerns, built positive relationships with their mentors, and learned ways to approach problems as a student. Survey results (n=17) indicated 89% of participants agreed that the program was effective. Additionally, participants indicated the program helped them grow professionally.

Good, Halpin, and Halpin (2000) assessed the effect of a mentoring program with upper-class, undergraduate, African American engineering students (n=19). Each were assigned to pre-engineering freshmen students whom they met with on a weekly basis and discussed freshmen experiences, participated in problem-solving workshops, identified problem-solving approaches for engineering courses, and went on social outings. The researchers analyzed mentor journals and found many noted benefits to their mentors, including over 70% noted academic growth, over 50% identified the program as having a positive effect on their study skills, 27% indicated growth in critical thinking and problem-solving abilities, and 27% indicated they had a deeper understanding of their engineering concepts.

Campbell and Campbell (1997) also evaluated a mentor program designed to increase contact between faculty and minority students, to promote academic goals, and to increase long-term graduation rates. Students were matched with faculty members based on their academic interests. They were also encouraged to meet throughout the year but

were not required to do so. The program offered additional workshops and social events for mentors and students to attend. The researchers analyzed the mentor logs for 339 students; additionally, they used a comparison group of 339 students who did not participate in the program, resulting in a sample of 678 students. Results indicated consistent differences in GPA with students participating in the mentoring program having higher GPAs than students who did not participate. The dropout rate for the mentored students was about half of that for the control group, but there was no difference in rates of graduation.

Similar to the findings identified for mentoring programs for the general student body, mentoring programs for minority groups exhibited some of the same characteristics, such as limited uses of theory and overarching frameworks, mentors assuming a variety of roles, and differences in program implementation. A key difference in mentoring programs targeted towards the general student body and mentoring programs for minority groups was program impact. Programs tailored for a subset of students who were considered disadvantaged seemed to be more effective.

<div align="center">Mentoring Program Challenges</div>

Although mentoring programs can have positive impacts on students, they can be difficult to implement effectively in institutions of higher education, especially for smaller colleges and universities with limited resources. In a study conducted by O'Brien, Llamas, and Stevens (2012), Griffith University implemented a tiered-group peer-mentoring program among its students. This program was for first-year students in the School of Education and Professional Studies. This six-week program implemented one hour a week in the first semester with trained mentors (typically 3rd- or 4th-year students) assigned to a

first-year student. Mentors were initially matched by their degree program and availability. The goal of the program was to support transition, to make students feel valued, and to foster friendships among students. Mentees were asked to complete pre- and post-surveys about their experience in the mentoring program, and mentors were required to attend two meetings to discuss program successes and challenges. Actions the program administrators took to address program challenges included: (1) providing paired mentors who mentored larger groups to increase diversity as well as to address availability issues; (2) streamlining paperwork submission to reduce overall workload on staff; (3) recruiting participants more effectively by promoting the program throughout the university at orientation sessions as well as at predominately first-year student courses within the first couple weeks of school; (4) incorporating text messaging to encourage mentees throughout the program; and (5) creating additional opportunities for mentors to provide sessions to address mentee course concerns.

Another program, Peer Mentor Tutor Program (PMTP), was implemented to improve student outcomes and retention among Bachelor of Nursing Students at risk for non-success in the program (Robinson & Niemer, 2010). This program supported 21 mentor/tutor groups (n=97) with help in sixteen courses for one year. Participants met on a weekly basis for tutoring and guidance in a collaborative session that included a faculty adviser, mentees, and mentors. Challenges included: (1) lack of communication; (2) incomplete and/or delayed submission of the appropriate documentation; (3) incomplete program evaluation; and (4) attrition of both mentors and mentees. Challenges when implementing mentoring programs are important to assess because they provide a glimpse

into the realities of implementing these programs within higher education settings, specifically with community colleges where resources are often limited.

Mentoring Best Practices

Due to the many challenges posed by organizations implementing mentoring programs, well-renowned researchers in the mentoring field in partnership with the United Way and Mentor-National Mentoring Partnership created the *Elements of Effective Practice for Mentoring, 1st Edition* published in 1990, which reflected the gold standard of mentoring at that time (Mentor, 1990). Since then, it has been revised two times. The second edition updated the previous *Elements* with the latest information on mentoring policies, practices, experiences, and research (Mentor, 2003). The third edition split the *Elements* into two distinct parts: (1) operational standards for mentoring programs and (2) program design and planning, management, and evaluation (Mentor, 2009). The latest version published in 2015 provides practitioners with a set of standards to guide mentoring programs: (1) recruitment; (2) screening; (3) training; (4) matching and initiation; (5) monitoring and support; and (6) closure (Mentor, 2015). Table 4 outlines each of the standards and select benchmarks and enhancements in the *Elements of Effective Practice for Mentoring, 4th Edition* relevant to mentoring in higher education.

Recruitment

The recruitment phase of a mentoring relationship is critical to attracting the ideal mentors and mentees (Mentor, 1990; Mentor; 2003; Mentor 2009; Mentor, 2015). During this phase, it is essential to be as clear as possible on program goals, requirements, and potential challenges. Another important component of the recruitment phase is addressing

mentor expectations in the mentor/mentee relationship (Grossman & Rhodes, 2002; Mentor, 2015; Nakkula & Harris, 2005). If expectations are set too high, he/she may not feel confident in the mentor role and decide to leave the relationship prematurely, potentially having a negative effect on the mentor and/or the mentee (Grossman & Rhodes, 2002; Mentor; 2003; Mentor 2009). This is also a good time to address any potential barriers, such as time commitments. If necessary, it may be beneficial to identify alternative methods to mentoring such as e-mentoring to offset some potential barriers (Mentor, 2015). Marketing for mentoring should also emphasize the benefits of mentoring for both mentors and mentees as well as reiterate the resources available to help mentors in their new role (Mentor, 2009; Mentor, 2015; Ramani, Gruppen & Kachur, 2006).

Screening

Screening mentors and mentees is also a critical component of the mentoring program (Olga, 1996; Mentor, 1990; Mentor, 2003; Mentor, 2015). Mentors should participate in some form of interview for the position by staff, and staff can initiate reference checks to better assess an individual's character and to address any concerns program staff may have by speaking with at least two individuals who are not family members (Mentor 2003; Mentor, 2015).

Training

Mentor and mentee training are critical components of the mentor program and have been effective in maintaining matches, increasing mentor and mentee satisfaction, and increasing mentor and mentee perceptions on the quality of their relationship (Grossman & Rhodes, 2002; Mentor, 2015). Training opportunities for prospective

mentees and mentors can also provide staff with additional ways to assess mentors and mentees. Receiving at least six hours of training has been shown to have positive effects on the mentor/mentee relationship (Mentor, 2015). Ideally, there will be multiple trainings: one before the match and another after the match has ended. The pre-match training focuses on increasing readiness to mentor, self-efficacy, safety, ethics, and risk management (Mentor; 2003; Mentor 2009). Post-match training focuses on addressing any issues after the initiation of the match, providing tips on building/maintaining the relationship, and offering proper closure procedures (Mentor; 2003; Mentor 2009; Mentor, 2015).

Matching and Initiation

Mentors and mentees are oftentimes matched based on similarities, such as interests, age, ethnicity, gender, and/or race, but research on matching suggests that matching based on common interests may be more beneficial for the mentor/mentee relationship (Nakkula & Harris, 2013; Karcher, Nakkula & Harris, 2005). It is recommended that mentors be at least two years older or two grade levels higher than mentees to build upon a true role model and friendship where mentees do not feel a need for approval from their mentor (Karcher & Herrera, 2007). It may also be beneficial to provide avenues for mentors and mentees to select each other. This increases the length of the mentor/mentee relationship and has positive effects on long-term individual outcomes (Grossman & Rhodes, 2002; Nakkula & Harris, 2013; Karcher, Nakkula & Harris, 2005). Ideally, mentors and mentees will initially meet in person. If program staff is available, it can be beneficial for them to attend as well to provide an overview of the program, to outline the resources for the program, and to answer any questions (Mentor, 2003; Mentor, 2015).

Monitoring and Support

Mentoring programs often have limited resources, making this component of the program very challenging at times (Mentor, 2015). Ideally, mentoring relationships should be monitored on an ongoing basis and as frequently as possible. Increased monitoring of mentoring relationships is consistent with longer and more meaningful relationships (Nakkula & Harris, 2005; Karcher, Nakkula & Harris, 2005). Resources should be provided to participants on an ongoing basis and address any concerns during the relationship (Mentor, 2015). Check-ins should be consistent, so that mentors and mentees know what to expect on a continuing basis (Mentor, 2015). Each meeting should be documented appropriately and can later serve as important data when evaluating the mentoring program outcomes (e.g., academic success, increased social integration, satisfaction with mentor/mentee).

Closure

Closure is an important phase in the mentoring relationship resulting in the end of the formal relationship between the mentor and the mentee and should be planned accordingly. Staff should discuss policies and procedures with mentors and mentees in advance, potentially adding it as a topic during training (Mentor, 1990; Mentor, 2003; Mentor, 2009). For matches that end prematurely, it is important to clarify reasons prompting ending the relationship (Nakkula & Harris, 2005; Nakkula & Harris, 2013). Each closure should involve program staff, the mentor, and the mentee.

Conclusion

The increase in mentoring programs in higher education has exceeded the literature on mentoring best practices and program effectiveness (Crisp & Cruz, 2009; Grossman & Rhodes, 2002; Kram, 1985). Although there has been an increase in research and progress with identifying the appropriate theories to guide programs, there is still an ongoing need to address the intrinsic issues within mentoring programs (Nakkula & Harris, 2005; Nakkula & Harris, 2013). The intent of this broad literature review was to provide a thorough review of how mentoring programs are implemented in hopes to improve future practices.

Consistent with previous mentoring literature reviews, it is important to continue clarifying the types and definitions of mentoring program (Crisp & Cruz, 2009; Grossman & Rhodes, 2002; Kram, 1985). Moreover, it is essential to provide definitions consistent with the roles mentors and mentees play within their respective programs. Because mentoring is so broad, mentoring programs take multiple forms, with mentors acting in a variety of roles (Crisp & Cruz, 2009; Grossman & Rhodes, 2002; Kram, 1985; Nakkula & Harris, 2005). Clarification of these specific roles can potentially make the lack of a clear definition seem more manageable.

Additionally, utilizing a relevant theory or framework as an overarching guide to program implementation can provide more rigor to the assessment of mentoring programs (Eller, Elise & Feurer, 2014; Scott, 1992; Olga, 1996). Moreover, it is important for program staff to clarify the particular framework or theory used in the program. It is clear in the research that this information is left out or unclear, leaving the reader to interpret

his/her own understanding of how the theory or framework was used in the program (Crisp & Cruz, 2009; Grossman & Rhodes, 2002; Kram, 1985).

Lastly, the success of mentoring programs depends on a variety of program factors, including the type, trainings provided, use of theory/framework, and role of the mentor and mentee (Mentor 2015; Nakkula & Harris, 2005; Nakkula & Harris, 2013). Among the studies presented in this review, tailored mentoring programs specific to minority students were beneficial to student success (Campbell & Campbell, 1997; Good, Halpin & Halpin, 2000; Kosoko-Lasaki, Sonnino & Voytko, 2006). Further, many minority students are first generation college students which increases the need to develop resources and programs beneficial to their college success. In the future, mentoring program staff should focus on creating effective and efficient programs guided by theory to foster academic success (Crisp & Cruz, 2009; Olga, 1996).

Table 1

Mentoring Definitions in Various Fields

Campbell, T, & Campbell, D. (1997)

"A situation in which a more experienced member of an organization maintains a relationship with a less experienced, often new member to the organization and provides information, support, and guidance so as to enhance the less experienced member's chances of success in the organization and beyond (p.727)."

Treston (1999)

"Relationship in which the mentor provides support, advice, feedback and guidance."

Gibbons (2002)

"Mentoring is a protected relationship in which learning, and experimentation can occur, potential skills can be developed, and in which results can be measured in terms of competence gained rather than curricular territory covered" (p.18).

Hall (2002)

"Intentional relationship focused on developing self of relatively unseasoned protégé through dialogue and reflection; an implicit focus on development of the next generation in context of interpersonal relationships" (p. 147).

Terrion & Leonard (2007)

"A helping relationship in which two individuals of similar age and/or experience come together, either informally or through formal mentoring schemes, in pursuit of fulfilling some combination of functions" (p.150).

Haggard, Dougherty, Turban & Wilbanks (2011)

"Mentoring requires a reciprocal relationship, involving mutuality of social exchange as opposed to a one-way relationship" (p. 292).

Table 2

Functionality Frameworks Used in Mentoring Programs

Bandura (1971)

Developed the social learning theory that outlines how humans learn behavior. He later added self-efficacy to account for intrinsic factors that influence the uptake of a behavior and redefined it as the social cognitive theory.

Jacobi (1991)

Identified five characteristics of a mentoring program essential to success: (1) mentoring is focused on helping a protégé meet long-term goals; (2) mentoring relationships include role modeling, emotional support, career development, and direct assistance; (3) relationships are reciprocal; (4) mentors should be more experienced, knowledgeable, and influential than the mentee and (5) require direct interaction between the mentor and protégé.

Krams (1988)

Identified two categories that promote development in relationships: (1) career—focused more on developing the careers of the protégé by protecting from risks, exposing to important social networks, and fostering skill development; and (2) psychosocial—focused on building the protégé relationship quality.

Mertz (2004)

Provides a conceptual model for mentoring assessing differences in higher education mentoring relationships, with six specific roles assigned to each level of the pyramid along with the commitment required at each.

Crisp & Cruz, 2009; Nora & Crisp 2008

Expanded upon the work of Krams (1988) by identifying four constructs important to mentoring relationships: (1) academic subject knowledge support; (2) emotional and psychosocial support; (3) a role model; and (4) career and degree support.

Table 3
Process Frameworks Used in Mentoring Programs

Krams (1988)

Posits mentoring relationships are phase oriented and include: initiation, cultivation, separation, and redefinition.

Zachary (2002)

Established models for mentoring to progress in relationships successfully using four phases: preparing, negotiating, enabling, and closure.

Johnson (2003)

Assesses mentor competence in mentoring relationships utilizing a triangular model with the following components: virtues, skills, and competencies.

Larose & Tarabulsy (2005)

Established the socio-motivational model of mentoring. This model posits specific mentor behaviors that affect the relationship including: (1) structure; (2) engagement of protégé; (3) support without coercion; and (4) competence support.

Girves, Zepeda, and Gwathmey (2005)

Identified the administrative support necessary for successful mentoring programs. These components include: (1) workshops; (2) evaluation; (3) support of administrative staff; (4) mentors and protégés with characteristics consistent with successful mentoring programs; (5) coordinated activities; (6) recommendations for policy and practice; (7) marketing and communication; (8) social activities; and (9) orientation sessions.

Table 4

Condensed Version of the Elements of Effective Practice for Mentoring Relevant to Higher Education (Mentor, 2015)

Standards	Benchmarks	Enhancements
Standard 1 – Recruitment	B.1.1 - Engage in recruitment strategies that portray the benefits, practices, supports, and challenges of mentoring B.1.2 - Utilize recruitment strategies that build positive attitudes and emotions about mentoring. B.1.3 - Recruit mentors whose skills, motivations, and backgrounds best match the goals and structure of the program. B.1.4 - Encourage mentors to assist with recruitment efforts by providing them with resources to ask individuals they know who meet the eligibility criteria	E.1.1 - Communicate to mentors about how mentoring and volunteering can benefit them. E.1.2 - Make publicly available a written statement outlining eligibility requirements for mentors in its program. E.1.3 - Use multiple strategies to recruit mentors (e.g., direct ask, social media, traditional methods of mass communication, presentations, referrals) on an ongoing basis. E.1.4 – Make publicly available a written statement outlining eligibility requirements for mentees in its program.
Standard 2 – Screening	B.2.1 - Establish criteria for accepting and disqualifying mentors into the program B.2.2 - Prospective mentors should complete a written application that includes questions consistent with program needs	E.2.4 - School-based programs assess mentors' interest in maintaining contact with their mentees during the summer months (following the close of the academic school year) and offer assistance to matches in maintaining contact.

	B.2.3 - Conduct at least one face-to-face interview with each prospective mentor that assess suitability	
Standard 3 – Training	B.3.1 - Provide a minimum of two hours of pre-match, in-person mentor training. B.3.2 - Provide pre-match training for mentors on the following topics such as: a. Program requirements b. Mentors' goals and expectations for the mentee, and the mentoring relationship c. Mentors' obligations and appropriate roles d. Relationship development and maintenance e. Ethical and safety issues that may arise related to the mentoring relationship f. Effective closure of the mentoring relationship g. Sources of assistance available to support mentors	E.3.1 - Provide additional pre-match training opportunities beyond the two-hour, in-person minimum for a total of six hours or more. E.3.2 - Address the following post-match training topics: a. How developmental functioning may affect the mentoring relationship b. How culture, gender, race, religion, socioeconomic status, and other demographic characteristics of the mentor and mentee may affect the mentoring relationship c. Topics tailored to the needs and characteristics of the mentee d. Closure procedures E.3.3 Program uses training to continue to screen mentors for suitability to be a mentor and develops techniques for early troubleshooting should problems be identified.

	h. Opportunities and challenges associated with mentoring specific populations	
Standard 4 – Matching and Initiating	B.4.1 - Consider the characteristics of the mentor and mentee (e.g., interests; proximity; availability; age; gender; race; ethnicity) when making matches. B.4.2 - Arrange and document an initial meeting between the mentor and mentee as well as, when relevant, with the parent or guardian. B.4.3 - Staff member should be on-site and/or present during the initial match meeting of the mentor and mentee	E.4.1 - Match mentee with a mentor who is at least three years older than the mentee. E.4.2 - Sponsor a group matching event where prospective mentors and mentees can meet and interact with one another and provide the program with feedback on match preferences.
Standard 5 – Monitoring and Support	B.5.1- Contact mentors and mentees at a minimum frequency of twice per month for the first month of the match and once a month thereafter. B.5.2 - At each mentor monitoring contact, program staff should ask mentors about mentoring activities, mentee outcomes, the quality of the mentoring relationship, and the impact	E.5.1 - Conduct a minimum of one in-person monitoring and support meeting per year with mentor, mentee, and, when relevant, parent or guardian. E.5.2 - Host one or more group activities for matches and/or mentees. E.5.3 - Host one or more group activities for matches and mentees'.

	of mentoring on the mentor and mentee, using a standardized procedure. B.5.3 - At each mentee monitoring contact, program should ask mentees about mentoring activities, mentee outcomes, the quality of the mentoring relationship, and the impact of mentoring on the mentee, using a standardized procedure. B.5.4 - Follow evidence-based protocol to elicit more in-depth assessment from mentors and mentees about the quality of their mentoring relationships and use scientifically tested relationship assessment tools.	E.5.4 - Thank mentors and recognizes their contributions at some point during each year of the mentoring relationship
Standard 6 – Closure	B.6.1 - Have a procedure to manage anticipated closures, B.6.2 - Have a procedure to manage unanticipated closures, B.6.3 - Have a procedure to manage closure when one member of the match is unable or unwilling to engage in the closure process.	E.6.1 - At the end of the agreed-upon time period of the mentoring relationship, program explores the opportunity with mentors, mentees, and, when relevant, parents or guardians to continue the match for an additional period of time. E.6.2 - Host a final celebration meeting or event for mentors and mentees, when relevant, to mark progress and to transition or acknowledge change in the mentoring relationship.

	B.6.4 - Conduct exit interview with mentors and mentees, and, when relevant, with parents or guardians.	E.6.3 - Provide training and support to mentees and mentors, mentees can identify and connect with natural mentors in their lives.

CHAPTER 3

METHODOLOGY

To address some of the gaps in the current literature concerning understanding factors affecting mentoring relationships for underrepresented populations, we examined factors affecting the mentoring relationship from the perspectives of mentors and mentees in a peer mentoring program called Blueprint for College Success (BCS) at Lawson State Community College (LSCC), a community college serving predominantly African Americans in Birmingham, Alabama. the needs of both mentors and mentees.

Theoretical Framework

A positive and productive relationship between a mentor and his/her mentee is essential for maintaining the persistent relationship needed for positive student learning outcomes. The mentor/mentee relationship is affected by many factors, including factors internal to the mentoring context such as the mentoring activities and those external such as mentor training and support. Some factors that can affect the mentor's and mentee's perceived relationship quality (PRQ) include reciprocity, shared values, and mutual respect (Straus, Johnson, Marquez, & Feldman (2013). From the mentee's perspective, PRQ is defined as the dynamics of the relationship influences directly by the mentor and mentee and is measured in a subscale of the Youth Mentoring Survey (YMS) v. 2.22. In this study, the PRQ from the mentee's point of view is hypothesized to be associated with the

general self-efficacy and the mentoring activities (hanging out, sharing of problems, etc.) (Fig. 1).

From the mentor's perspective, quality is defined as the dynamics of the relationship influenced directly by the mentor and mentee and is measured in a subscale of the Match Characteristics Questionnaire v 2.22 (MCQ) survey. In this study, the quality of the relationship from the mentor's point of view is hypothesized to be associated with the mentor's general self-efficacy, mentoring activities (having fun, character development, etc.), and mentor training and support (support from staff, family, friends, etc.). Figure 2 hypothesizes that beneficial mentoring outcomes including a persistent relationship and positive student performance are associated with the quality of the mentor/mentee relationship. These hypothesized relationships are supported by the social cognitive theory.

Social cognitive theory posits that individuals function in a continuous reciprocal fashion between behavior and the conditions that control a particular behavior (Bandura, 1971). Bandura revised the social learning theory to include self-efficacy and redefined it as the social cognitive theory (Bandura, 1979). Social cognitive theory expands on the social learning theory by outlining the process by which personal factors, environmental factors, and behavior exert a reciprocal influence on each other including self-efficacy as a key determinant of changing human health behavior (Bandura, 1989). Social cognitive theory is the foundation for behavior modeling that has been used in training and peer mentor programs (Aderibigbe & Gray, 2018; Kelley & Lee, 2018). The theory posits multiple determinants influence each other. These determinants can include cognition, personal factors, behavior, and environmental influences (Bandura, 1989) Personal factors

such as an individual's self-efficacy can mediate goal attainment and influence of feedback (Bandura 1977) within the reciprocal framework of the model.

Additionally, there is a relationship between behavior and environmental influences. Behavior can alter the environment emphasizing certain environmental conditions over others (Bandura, 1989). The relationship between personal factors and beliefs embodies the interaction among thought, affect, and action. Personal factors—such as one's beliefs, goals, self-perceptions, intentions, and expectations—affect behavior (Bandura, 1971). Environmental influences also interact with an individual's personal factors (Bandura, 1989).

According to the theory, self-efficacy plays a crucial role in influencing behavioral change (Bandura, 1989). If an individual has self-efficacy, they are more likely to change a particular behavior despite obstacles. In turn, if an individual does not feel they have control over a behavior, they are not motivated to act on the behavior (Bandura, 1988). As behavior change takes place, this affects both the environment and the person. Additionally, modeling, instruction, and social persuasion can modify personal factors, such as expectations and beliefs (Bandura, 1989). Modeling plays an important role in social cognitive theory emphasizing that human behavior is learned by observing others, and in turn, by modeling their behavior.

In our mentee framework (Figure 1), we propose that mentee six and eight-month self-efficacy (individual factor), six and eight-month mentoring activities (environmental factor), and six-month PRQ (environmental factor) directly affect eight-month PRQ (environmental factor). This relationship has a long-term effect on persistence (behavioral

factor), and student academic outcomes (behavioral factor). For example, mentees who exhibit a high-self efficacy, perceive their mentor/mentee relationship consists of beneficial mentoring activities applicable to their needs, and have a positive PRQ would theoretically persist in the relationship increasing their odds of more positive academic outcomes.

In our mentor framework (Figure 2), we propose that mentor six and eight-month self-efficacy (individual factors), six and eight-month mentoring activities (environmental factors), six and eight-month mentor training and support (environmental factors) and six-month PRQ (environmental factor) directly affect eight-month PRQ (environmental factor). This relationship in turn has a long-term effect on persistence (behavioral factor), and student academic outcomes (behavioral factor). For example, mentors who exhibit a high-self efficacy, perceive their mentor/mentee relationship focused on beneficial mentoring activities, and have a positive PRQ would theoretically persist in their relationship increasing their odds of more positive academic outcomes.

Blueprints for College Success Mentoring Program

Alabama Possible, a local statewide non-profit organization that removes barriers to prosperity in Alabama, and LSCC partnered to establish the BCS mentoring program, which is a two-year funded project at LSCC in Birmingham, Alabama. The overall goal of the program is to reduce attrition rates among first-year students at LSCC by providing them with peer mentors.

Recruitment for the Pilot Program

Mentors from LSCC were recruited via flyers, instructors, and staff between June and August 2016. Prospective mentors were invited to submit applications for the program.

The applications specified the program mission statement, mentor minimum qualifications and responsibilities, and demographic information. Demographic questions were meant to be used as potential matching criteria. Each prospective mentor was also asked to list any extracurricular activities he/she participates in, supply one letter of recommendation, and provide responses to short answer questions addressing the reasons he/she desires to be a mentor. Mentors also participated in a three-member panel interview, consisting of program staff. Initially program staff set a goal of 10 mentors with two alternates; however, three mentors dropped out of the program before matching occurred, due to personal reasons and expected fall course loads. The final recruitment for mentors yielded nine mentors.

Mentees were recruited from LSCC via flyers throughout the duration of the program. Information about the program was also posted on the LSCC website, and flyers were passed out at the freshmen orientation sessions. Program staff was also provided by the admission's office with a list of potential students that fit the inclusion criteria. Prospective mentees were called and informed about the program. If they were interested in applying, they were emailed an application. If students did not have access to a printer, program staff informed them where they could pick up applications. Mentee applications were similar to mentor applications. Initially, program staff set a goal of 100 mentees. This goal was deemed inappropriate given the number of incoming students meeting the eligibility criteria, so the eligibility criteria were reevaluated to include incoming students who graduated from a Birmingham City, AL or Jefferson County, AL high school. The recruitment for mentees yielded 51 mentees.

Mentor Training

Prior to matching, mentors were required to participate in mentor training. Two mentor trainings were scheduled to accommodate student's schedules. The first mentor training was provided by an outside contractor and consisted of the following topics: dos and don'ts of mentoring, how to represent your best self, role playing various mentor/mentee scenarios, business etiquette, effective presentations, managing a mentor crisis and conflict resolution, cultural diversity and sensitivity, and digital awareness. The second training was provided by program staff and consisted of the same topics from the first training. All mentors participated in the training. In addition to the training, each mentor was provided with a binder that included: program calendar, crisis protocol form, weekly check-in form, mentor confidentiality agreement and off-campus responsibility overview, mentor guidelines, mentor dos and don'ts overview, and the peer mentor obligation agreement.

Matching Process

The only criteria program staff set for matching was by gender because it was an important concern among school staff. The matching process was difficult due to low recruitment, so mentors and mentees were matched on an ongoing basis as mentee applications were turned in. The mentor and mentee sample were predominantly female (78% and 73%, respectively) and African American respectively (100% and 98%, respectively). By the end of the program, all mentors were matched with up to eight mentees. After matching each mentor with a mentee, the program staff sent an email with a copy of the mentee's application to the assigned mentor. The mentor was expected to

contact the respective mentee within the week, ideally via phone and/or in person. Mentees also received an email with details about their mentors as well as details on when to expect a follow-up.

Participant Incentives

Mentors received a $1,300 stipend on a bi-monthly basis for their participation in the program. In order to receive a full payment, mentors were required to meet all of their weekly and monthly requirements including participating in data collection. If program requirements were not met, mentors either received none of the payment or the payment was adjusted based upon the requirements that were met. To keep mentors on track to meet their program requirements, program staff emailed monthly updates about mentor progress toward meeting the program goals. At the beginning of the program, mentees did not receive any compensation for their participation. In January 2017, program staff decided to implement $25 gift cards to boost their participation.

Monthly Professional Development Seminars

Each month the program staff hosted professional development seminars for participants to attend. These professional development events were required for mentors and optional for mentees. Mentors who were not able to attend, were required to make up hours in the form of requested program staff needs such as helping with the set up and break down for professional development events. Prior to each event, mentors and mentees received an email and calendar invitation confirming the date and time. Monthly professional development topics included: winning colors (identifying personality traits), budgeting for success, scholarships and financial aid, leadership skills, and keys to

unlocking educational/professional success. For example, a Regions Bank representative spoke at the budgeting for success event about how to budget and effectively save money. In addition to these monthly meetings, mentors participated in a mentor meet and greet to get to know each other and in additional meetings as deemed necessary for planning purposes. There was a total of eight professional development events throughout the first year of the program.

Mentor Weekly Check-Ins

Mentors were required to check in with the LSCC persistence counselor on a weekly basis. At each weekly check-in, mentors turned in their weekly status report for each of their mentees. A weekly report included the length of time spent with mentee, what took place during the mentor and mentee meeting, and rating of their mentee relationship using four rating options: (1) excellent; (2) average; (3) below average; and (4) poor. Mentors also reported any challenges they encountered during the week, as well as any additional topics they wanted to discuss.

Blackboard Curriculum

In addition to the mentor training, mentors also participated in a Blackboard mentor curriculum, which consists of 26 lessons, quizzes, and discussion boards. Each mentor was required to lead at least two discussion boards as well. The first half of the assignments (13 lessons, respective quizzes and discussion boards) were due in December 2016. The remainder of the lessons (13 lessons, respective quizzes and discussion boards) were due at the end of the program (May 2017). Some of the Blackboard topics included: safe living

on a college campus, community living from me to we, academic integrity, understanding

and managing conflict, healthy relationships, and decision making.

Mentor Lab Time

Mentors were also required to spend at least one hour a week in the LSCC Space

Center, which is a support center for students to engage in tutoring, advising, counseling,

and seminars. During their time in the lab, mentors were advised to work on their

Blackboard curriculum and catch up on any of their mentor tasks. They could also use this

time to meet with their mentees.

Study Design

To examine factors affecting mentoring relationship in the BCS mentoring

program, a sequential mixed methods study design was used. This design provides a

thorough and in-depth approach to examining complex issues such as characteristics

within a mentor/mentee relationship that promoted positive academic outcomes

(Ivankova, 2013; Tashakkori & Teddie, 2003). First, a quantitative study was conducted

using a one-sample, short-term, longitudinal design from June 2016 to June 2017. The

aim of this study was to examine the relationship between mentor training and support,

mentoring activities, self-efficacy and PRQ. We hypothesized that:

Hypothesis 1a.   There is a significant positive association between mentor PRQ and
mentor self-efficacy.

Hypothesis 1b.   There is a significant positive association between mentor PRQ and
mentoring activities.

Hypothesis 1c.   There is a significant positive association between mentor PRQ and
mentor training and support.

Hypothesis 1d.   There is a significant positive association between mentee PRQ and
mentee self-efficacy.

Hypothesis 1e.   There is a significant positive association between mentee PRQ and mentoring activities.

Then, a qualitative study using focus group discussions and in-depth interviews was used to deeply understand the mentoring experiences and to further elucidate the various factors, positive and negative, that may affect the mentoring relationship that were not originally identified in the quantitative study (Creswell, 2005; Ivankova, 2013; Tashakkori & Teddie, 2003).

Setting

LSCC is a two-year, multi-campus college located in Jefferson County, Alabama. The community college serves over 3,000 students, mostly minorities. The two-year grant-funded mentoring program, *Blueprints for College Success* (BCS) was implemented in LSCC with the primary aim of decreasing attrition rates among first-year LSCC students (mentees) by matching them with mentors, second-year students. As noted previously, the focus of this study is examining factors affecting the PRQ for mentees and mentors in this setting. The study was approved by the Institutional Review Board of the University of Alabama at Birmingham and by LSCC (see appendix A).

Participants

Mentees. Mentees included in the study had to be graduates from a high school in Jefferson County, Alabama or Birmingham, Alabama, and current first-year students at LSCC. They were also required to participate in the program for at least one year. However, no stipulation was placed on whether they actively participated in any activities (attended

events, met with their mentor) because they did not receive any compensation for their participation. A total of 51 mentees were recruited for the study.

Mentors. Mentors included in the study had to be full-time second-year students with at least a 3.0 GPA. They were also required to participate in the program for at least one year. Mentors received a stipend for participating in the program. They were required to participate in a two-day training. Additional mentor duties included:

- Attend monthly professional development meeting

- Attend bi-weekly individual check-in with mentees

- Attend weekly check-in with LSCC persistence counselor

- Participate in 1-hour service in the LSCC computer resource center

- Moderate Blackboard discussions via an online system that fosters ongoing training throughout the school year

- Participate in mid-term and end-of-semester reflections and reports

A total of 9 mentors were recruited for the study.

Procedures

The study team, consisted of a trained doctoral student and the LSCC persistence counselor, recruited participants and collected data between June 2016 and June 2017. Recruitment for participating in the program and in the mixed methods study occurred simultaneously. Those who were recruited for the program were also asked to participate in the study and their informed consent explaining the study aims, procedure, benefits and risks was obtained.

Mentors were recruited at LSCC via flyers, instructors, and staff. Interested mentors were invited to submit applications. Applications specified the program mission, identified mentor minimum qualifications and responsibilities, and asked for basic demographic information. Mentors participated in a three-person interview panel. Initially, 12 mentors were chosen, two serving as alternates to participate in the program; however, three left due to personal issues, such as expected school schedule concerns. Final recruitment was nine mentors.

Mentees were also recruited from LSCC via flyers throughout the duration of the program. Flyers were passed out at freshmen orientation and information about the program was also listed on the LSCC website. Mentee eligibility included first-year students who graduated from a Birmingham city, or Jefferson County, Alabama high school. The admissions office also provided a list of eligible mentees to the program staff, who called prospective mentees to inform them about the program. Interested participants were emailed an application. They were also given the opportunity to pick up applications. The recruitment for mentees yielded 51 mentees.

<div align="center">Quantitative Data Collection</div>

Instruments

Match Characteristics Questionnaire (MCQ) v 2.22. The MCQ (see appendix B) is the most comprehensive measure of match relationships (Nakkula & Harris, 2013). It is completed by mentors and takes approximately 10-15 minutes to administer (see Table 5). The purpose of the survey is to measure positive and negative aspects of a mentor/mentee relationship including PRQ (characteristics of the relationship influenced

by the mentor and mentee – compatibility, closeness, etc., of the relationship), mentoring activities and their importance (having fun, character development, etc.), and perceptions of mentor training and support (characteristics of the relationship not influenced by the mentor or mentee – support from staff, family, friends, etc.) (Harris & Nakkula, 2008).

The first section of the survey focuses on mentor PRQ and consists of 22 statements (α = .84; Harris & Nakkula, 2008) using six rating options: (1) never; (2) rarely; (3) sometimes; and (4) pretty often; (5) very often; and (6) always. Sample statements include: "My mentee is open with me.", and "My mentee asks for my opinion or advice.". Additionally, PRQ is assessed in the last section of the survey with 10 additional questions. The second part of the survey addresses mentoring activities and consists of 20 questions (α = .81; Harris & Nakkula, 2008) using six rating options: (1) not important; (2) a little important; (3) pretty important; (4) very important; (5) extremely important; and (6) most important. Sample questions include: "Sharing your life experiences with your mentee?", and "Having times when you do nothing but fun things with your mentee?". The last section consists of 17 statements (α = .50; Harris & Nakkula, 2008) that address mentor training and support using six rating options: (1) completely disagree; (2) mostly disagree; (3) tend to disagree; (4) tend to agree; (5) mostly agree; and (6) completely agree. Sample statements include: "My mentee and I hit it off right away.", and "My friends and family are glad I am a mentor.".

Youth Mentoring Survey (YMS) v. 1.23. The YMS (see appendix C) is the most comprehensive measure of match relationships (Nakkula & Harris, 2013). It is completed by mentees and takes approximately 10-15 minutes to administer (see Table 5). The purpose of the survey is to measure positive and negative aspects of a mentor/mentee

relationship including the PRQ (dynamics of the relationship influenced directly by the mentor and mentee – satisfaction, and reciprocity of the relationship, etc.), and mentoring activities and their importance (having fun, character development, etc.) (Harris & Nakkula, 2008).

The first section focuses on PRQ (α = .84; Harris & Nakkula, 2008) consisting of 25 statements and four rating options: (1) not at all true; (2) a little true; (3) pretty true; and (4) very true. Sample questions include: "I talk with my mentor when I have problems or things that worry me.", and "My mentor lets me choose what we do, or else we choose it together.". The second section addresses the mentoring activities (hanging out, sharing of problems, etc.) (α = .79; Harris & Nakkula, 2008) and consists of 22 questions and five rating options: (1) never; (2) less than half the time; (3) half the time; (4) more than half the time; and (5) every time. Sample questions include: "Do activities that are really fun?", and "Talk about things you hope will happen in your life?".

General Self-efficacy Scale (GSE). The GSE scale (see appendix D) is a self-report measure of self-efficacy that is correlated with emotion, optimism, and work satisfaction (Schwarzer & Jerusalem, 1995). Mentors and mentees completed the GSE (see Table 5). It consists of 10 statements (α = .76-.90; Schwarzer & Jerusalem, 1995), takes approximately five to seven minutes to administer, and consists of four rating options: (1) not at all true; (2) hardly true; (3) moderately true; and (4) exactly true. Sample statements include: "I can always manage to solve difficult problems if I try hard enough.", and "I am confident that I could deal efficiently with unexpected events."

Survey Administration

The surveys were administered six and eight months into the mentoring period via email. These time points for data collection were chosen because the first three-four months is considered a "honeymoon" period (Harris & Nakkula, 2008). During this period, results can be skewed due to unrealistic expectations for the mentoring relationship (Harris & Nakkula, 2008).

Mentors. Mentors completed the MCQ and the General Self-Efficacy scale (GSE) at six and eight months into the match (Schwarzer & Jerusalem, 1995) (see Table 6). In February 2017, nine mentors completed 39 six-month MCQ surveys on their respective mentoring relationships. There were 39 surveys, because mentors were assigned more than one mentee. On average, mentors were assigned six mentees. Additionally, nine mentors completed 23 six-month GSE scales to assess their self-efficacy (see Table 7). GSE scales were included at the end of each of the MCQ surveys in a program oversight resulting in multiple GSE scales for the same mentor. We decided to use the first six-month GSE scales completed by mentors. Essentially there were no differences in their rating across mentors. Only one mentor rated themselves with a one-point difference.

Out of the 39 six-month MCQ surveys, we identified 12 mentees who were no longer active. Mentees were identified as no longer active if their mentor indicated they had not met with them at least once since the inception of the program (August 2016). Additionally, four mentor surveys were incomplete not including the inactive mentee surveys. Surveys were identified as incomplete if they were missing more than 67% of the responses (Harris & Nakkula, 2008). Data from incomplete surveys were still used in the

final data analyses as noted above. Accounting for the inactive mentee surveys, 27 mentor surveys met the criteria for final analyses. Twenty-three GSE scales met the criteria for final analyses.

In April 2017, mentors completed the eight-month MCQ survey and eight-month GSE self-efficacy scales. Nine mentors completed 31 surveys on their respective mentees. There were 31 surveys, because mentors were assigned more than 1 mentee. On average, mentors were assigned six mentees. Out of the 31 surveys six were incomplete. Incomplete surveys were still used in the final data analyses as noted previously. The GSE scale was included at the end of each of the MCQ surveys resulting in multiple GSE scales for the same mentor. We decided to use the first six-month GSE scales turned in by mentors considering there was a small variance among scales. In terms of differences in their ratings across mentors, only one mentor rated themselves with a two-point difference. Twenty-five GSE scales met the criteria for final analyses. The final data set included 27 six-month MCQ surveys, 31 eight-month MCQ surveys, 23 six-month GSE scales, and 25 eight-month GSE scales. The MCQ surveys consisted of data from eight mentors on 34 mentees. The GSE scales consisted of data from eight mentors.

Mentees. Mentees completed the YMS and GSE scale at six and eight months into the match to assess their self-efficacy. Seven mentees completed six-month YMS surveys about their respective mentors and GSE scales (see Table 6). Seven mentee six-month YMS surveys and six six-month GSE scales met the criteria for final analyses. In April 2017, six mentees completed the eight-month YMS and five completed the 8-month GSE scales. Six mentee eight-month YMS surveys and five eight-month GSE scales met the criteria for final analyses. The final data set included seven six-month YMS surveys, six

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eight-month YMS surveys, six six-month GSE scales, and five eight-month GSE scales. The YMS surveys consisted of data from seven mentees on four mentors (three of the mentees were assigned to the same mentor) (see Table 8). The GSE scales consisted of data from seven mentees.

Qualitative Data Collection

Interview Guide Development. The goal of the qualitative assessment was to provide more insight into the factors that affect PRQ. The guides were semi-structured, and questions focused on further understanding positive and/or negative characteristics of the mentor/mentee relationship. In addition, participants were probed to identify why characteristics were considered positive and/or negative. Sample questions for mentors included: Can you share one success or pleasant surprise about the mentorship initiative to-date? How were you supported in your experience as a mentor? What are the characteristics of a good mentee? What recommendations, if any, do you have to improve the mentor role experience? Mentee questions were similar to mentor questions and included: What are the characteristics of a good mentor? Can you share one success or pleasant surprise about the mentorship initiative to-date? All interviews and focus groups were transcribed, and staff obtained informed consent from all participants prior to each session.

Focus Group/Individual Interview Administration. We conducted focus groups (see appendix E for focus group guide) with mentors and mentees after they completed their eight-month MCQ and YMS surveys. Findings were used to improve the program in the second year of implementation. We conducted three focus groups that included two

with mentors (n=9) (one focus group with seven mentors and the other with two mentors) and one with mentees (n=5). All mentees and mentors were invited to participate in focus groups. We also conducted in-depth individual interviews (n=3) (see appendix E for individual interview guide) with mentees. Mentees who participated in both 6-month and 8-month YMS and GSE scale data collection were invited to participate in individual interviews. The focus group moderator and individual interviewer were the same and was a trained doctoral student. The focus group and the in-depth individual interviews were audio-recorded and transcribed verbatim.

Data Analysis

Statistical Analysis

Mentors. Due to the small sample size, assumptions were not met for parametric data analysis, so Spearman's rho correlation was used to analyze the data. Spearman's rho correlation is a non-parametric correlation analysis commonly used with smaller datasets to assess the strength and direction of association between two variables (McDonald, 2014). We computed a Spearman's rho correlation to determine if there was a significant association between mentor eight-month PRQ and six-month self-efficacy; eight-month self-efficacy; six-month mentoring activities; six-month mentor training and support; and eight-month mentor training and support. We reverse coded 21 questions in the MCQ survey. The PRQ consisted of seven scales, mentoring activities consisted of five scales, and mentor training and support consisted of three scales (see Table 9). The six-month sum scores for each of the seven PRQ scales were computed and combined to create the six-month PRQ variable. This same procedure was followed to compute the eight-month PRQ

variable. The six-month sum scores for each of the five mentoring activities scales were combined to create the mentoring activities variable. This same procedure was followed to compute the eight-month mentoring activities variable. The six-month sum scores for each of the three mentor training and support scales were combined to create the six-month mentor training and support variable. This same procedure was followed to compute the eight-month mentor training and support variable. The six-month sum scores were computed for the six-month self-efficacy variable. The same procedure was followed to compute the eight-month self-efficacy variable. A Spearman's rho correlation was then computed using the sum scores for eight-month PRQ and each of the dependent variables: six-month PRQ; six-month mentoring activities; eight-month mentoring activities; six-month mentor training and support; eight-month mentor training and support; six-month self-efficacy; and eight-month self-efficacy to identify the direction and significance of the relationship. The statistical software SPSS 23, released in 2015 by IBM SPSS Statistics for Windows, was used for all analyses.

Mentees. We computed a Spearman's rho correlation to determine if there was a significant association between mentee eight-month PRQ: and six-month self-efficacy; eight-month self-efficacy; six-month mentoring activities; and eight-month mentoring activities. We reverse coded three questions in the YMS survey. The PRQ consisted of three scales, and mentoring activities consisted of three scales (see Table 10). The six-month sum scores for each of the three PRQ scales were computed and combined to create the six-month PRQ variable. This same procedure was followed to compute the eight-month PRQ variable. The six-month sum scores for each of the three mentoring activities scales were combined to create the mentoring activities variable. This same procedure was

followed to compute the eight-month mentoring activities variable. The six-month sum scores were computed for the six-month self-efficacy variable. The same procedure was followed to compute the eight-month self-efficacy variable. A Spearman's rho correlation was then computed using the sum scores for eight-month PRQ and each of the dependent variables, six-month PRQ, six and eight-month mentoring activities, and six and eight-month self-efficacy. We used SPSS 23, released in 2015 by IBM SPSS Statistics for Windows, for all analyses.

Qualitative Analysis

Focus groups and individual interviews were audio-recorded and transcribed verbatim. Transcripts were coded and analyzed for common themes using NVivo 10 software, released in 2012 by QSR International. For confidentiality, each participant was assigned a unique identifier. The qualitative analysis consisted of six steps: (1) interviews and focus groups were transcribed; (2) the persistence counselor and the trained doctoral student, study staff, read through each of the transcripts independently making notes where necessary; (3) initial independent data coding; (4) study staff met to establish inter-coder agreement, in the case of disagreements consensus was established; (5) themes established based on codes; and (6) saturation reached and revised codebook developed and finalized (Glaser & Strauss, 1967). Analysis consisted of identifying codes and themes within mentor focus groups, within mentee focus groups, within mentee individual interviews and across focus groups and interviews.

CHAPTER 4

RESULTS

The final dataset for analyses included 26 six-month and 31 eight-month MCQ surveys yielding data on three mentees and 23 six-month and 25 eight-month GSE scales for mentors. Additionally, the final dataset included seven six-month and six eight-month YMS surveys yielding data on four mentors and six six-month and five eight-month GSE scales for mentees. The age range for the entire sample was 18 to 20 years with majority of mentors being 19 years of age and all mentees being 18 years of age. Mentors and mentees were predominantly female with 73% of mentees and 78% of mentors being female. Nine mentors and five mentees participated in the focus group, and three additional mentees participated in in-depth individual interviews. All participants (100%) self-identified as African American. Study staff expected these demographics based upon the student population at LSCC, and Jefferson County and Birmingham City High Schools.

Quantitative Data Analyses Results

The quantitative analyses yielded the following results:

Hypothesis 1a. There was no significant association found between mentor eight-month PRQ and six-month self-efficacy (r_s=.290; p=.215). Additionally, there was no significant association found between mentor eight-month PRQ and mentor eight-month self-efficacy (r_s=-.186; p=.373) (see Table 7).

Hypothesis 1b. There was no significant association found between mentor eight-month PRQ and six-month mentoring activities (r_s= -.151; p=.562). Additionally, there was no significant association found between mentor eight-month PRQ and eight-month mentoring activities (r_s= -.040; p=.872) (see Table 7).

Hypothesis 1c. There was a moderate significant positive association found between mentor eight-month PRQ and six-month mentor training and support (r_s=.542; p=.017). High levels of mentor training and support at six-months was related to greater PRQ at eight months. Additionally, there was a strong significant positive association found between mentor eight-month PRQ and eight-month mentor training and support (r_s=-.762; p<0.05) (see Table 7). High levels of mentor training and support at eight-months was related to greater PRQ at eight-months.

Hypothesis 1d. There was a very strong significant positive association found between mentee eight-month PRQ and six-month self-efficacy (r_s= 1.000; p<0.09). High levels of self-efficacy at six-months was related to greater PRQ at eight-months. Additionally, there was a very strong positive significant positive association found between mentee eight-month PRQ and eight-month self-efficacy (r_s=1.000; p<0.09) (see Table 8). High levels of self-efficacy at eight-months was related to greater PRQ at eight-months.

Hypothesis 1e. There was no significant positive association found between mentee eight-month PRQ and six-month mentoring activities (r_s=.714; p=.111).

Additionally, there was a strong significant positive association found between mentee eight-month PRQ and eight-month mentoring activities (r_s=.829; p=.042) (see

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Table 8). High mentoring activities at eight-months was related to greater PRQ at eight-months.

To assess the stability of the dependent variable over time, we computed a Spearman's rho correlation to determine the strength and direction of the relationship between mentor/mentee eight-month PRQ and mentor/mentee six-month PRQ. There was a very strong significant positive association found between mentor eight-month PRQ and mentor six-month PRQ (r_s=.819; p<0.05) (see Table 10). High levels of PRQ at six-months was related to greater PRQ at eight-months. There was no significant association found between mentee eight-month PRQ and mentee six-month PRQ (r_s=.771; p=.072) (see Table 7).

Qualitative Data Analyses

We conducted two focus groups with mentors (n=9) (one focus group with two mentors and one focus group with seven mentors) one with mentees (n=5), and in-depth individual interviews (n=3) with mentees that elicited the following key characteristics of a persistent mentor/mentee relationship:

Communication and Participation. Mentors expressed the importance of effective communication within the mentor/mentee relationship. They felt mentees lacked communication skills and came off as nonchalant when they were not able to participate in program events. They discussed the frustrations of having to do what seemed like forcing mentees to actively participate in the program. For example, one mentor stated, "You can't force somebody to communicate back with you and do things you want them to do." Other mentors thought it was important for the mentee to be empowered to ask their mentor

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questions. For example, she stated, "When your mentees voluntarily ask you stuff without you having to reach out to them first." She felt this was a good indication of growth in their relationship because she did not have to be the one always reaching out.

Other mentors felt the same way, expressing their frustration with putting so much hard work into the program with limited success. Another mentor stated, "At the professional development events it was more mentors than mentees there … and that goes back to the communication you can't force nobody to do nothing. It's a little heartbreaking, and it kinda hurts my feelings because you do all this work and they don't show up." Another mentor stated, "One mentee withdrew without letting anyone know."

Mentees also expressed the importance of having great communication in their relationships with mentors. One mentee emphasized learning communication skills by stating, "I learned some things. I learned to communicate more. To always ask questions like if I need anything because at first I used to not ask questions. I used to want to do everything by myself". Additionally, she talked about how gaining better communication skills helped her grow as a mentee. She said, "I feel like I've grown. Like I only communicated with the people … I know…. Now I can communicate with more people now. Asking for help is more easy now. At first, I wouldn't talk to anybody." One mentee mentioned effective communication as a tool for helping mentees acquire the necessary resources available to them on campus, so that mentees could be as successful as possible. One mentee stated, "Communication is also another one. You have to talk to students and encourage them that if they need any help to go to tutoring or talk to a professor, a teacher or folks in the office, or if they need to transfer to another college, they can go to financial aid. They can go to the library and do some scholarships online."

Overall, mentors expressed the importance of selecting mentees who were really interested in participating in the program. It was also important for the mentors to feel the relationship was reciprocal. For example, mentors wanted mentees to actively reach out to them for help rather than the mentor always initiating conversations. For mentees, communication was a skill set they learned while being a mentee. The mentoring relationship seemed to foster open dialogue between two individuals that may not have interacted outside of the mentoring program. Moreover, mentees emphasized the importance of mentors taking the time to effectively communicate all of the resources on campus, so that mentees could be successful. Both mentors and mentees emphasized that a lack of communication oftentimes hindered the relationship.

Time. The importance of having enough or making enough time to meet with your mentee/mentor was a component of the relationship. For example, one mentor stated, "Don't sign up if you don't have time. Like taking on too many roles and you're expected of certain things and you say you have homework, and it's like you need to prioritize. So organize your time." Another mentor emphasized how time consuming the program is and making sure mentors knew this before they signed up. She said, "Making sure you do have enough time for the whole thing because it can be 'time consuming'." Mentors also stressed how important it was to make sure prospective mentees knew about the time commitments before they decided to participate in the program.

Mentees expressed the importance of meeting 'face to face', so they could build a better bond. One mentee stressed how important it was to meet in person even if his mentor wanted to meet off campus. He said, "Try to meet more face to face, if you're busy during the week you can meet off campus and have lunch." Another mentee expressed frustration,

because he was not able to spend a lot of time with his mentor. He stated, "You rarely see them so I guess there should be like a specific area where you can talk to them. …. At least text them and have a schedule where at least y'all can meet and talk about whatever you need. …. I feel like when they be so busy they don't have time to meet you." Another mentee looked at time in the sense of making yourself available when your mentee needs you because you never know what they need. She stated, "Be available you never know what someone is going through, help them with their weaknesses. Make a new friend, everyone's helpful in some form or fashion."

Overall, mentors expressed the importance of providing future mentors with enough information about the program in advance, especially time commitments. Mentors emphasized how it was very important to make sure you had enough time to be an effective mentor – making sure you prioritized. For mentees, time was essential to a persistent relationship. In order to build trust and open up to your mentor, mentees desired a more intimate relationship. Additionally, mentees felt it was very important that your mentor made time to address explicit concerns you had at any point in the relationship. A lack of time seemed detrimental to building a persistent relationship with the mentee.

Patience. Learning patience was a theme mentors specifically focused on. They described how important it is to be patient when getting to know new people. One mentor stated, "You can't be impatient, everybody learns and grows different, understanding how you develop, you slow down a lot more when you try and understand the development of something, develop and mature someone that is not really where they need to be." They also talked about patience regarding mentees who were not actively participating in the

program and how frustrating it could be. For example, "I got blocked. I sent out a text and a message came back to me saying this sender had activated block."

Others expressed this frustration as well. Another mentor stated, "One thing that hurt me was I hit my mentee up back to back to back to back and she hit me up for the celebration and I was just like wow." These examples emphasize the importance of patience when dealing with difficult mentees who only participated when there is an immediate benefit, such as free food. Another mentor discussed her relationship with one of her mentees by saying, "So something that really hurt me was when I kept reaching out to my mentees to fill out my report. And so it had been months and months and months of the same thing with one girl and I reached out to her one day and she goes who are you".

Other mentors were also frustrated because they felt they were being very patient but oftentimes mentees were not actively participating like they should. One mentor stated, "Ok so we were in the rec room and one of my mentees was talking about somebody was blowing up his phone. And he was talking about it and I was just like so tell me about what's going on and he was like bro I don't know who this guy is somebody named John and he keep blowing up my phone. He just getting on my nerves and I didn't even want to be a part of the program." The mentors emphasized how these experiences, although hurtful at times, taught them patience and perseverance.

Open-Mindedness. Additionally, mentors expressed the need for participants in the relationship to have an open mind. One mentor stated, "Keep an open mind. I understand you're not going to be fully open with someone the first time you meet them but after like the relationship keeps going it's just like more than one-word answers would

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be beneficial. I can't help you if I don't know what you need." Mentors also questioned why mentees wanted to participate in the program if they were not going to have an open-mind. For example, "Mentees do not know how to leverage the relationship with the mentor, they thought they wanted a mentor but you're not really good at listening so it's kinda like ok yea I hear you but I'm still gonna kinda do my thang, you're at the age where you're grown and you really don't want a mentor but you don't know anything about college so I guess I need one today." Moreover, mentors discussed how being open-minded impacted their lives beyond the mentoring program. For instance, "I think I grew up a little bit. I became more mature. It just shows that you're going to deal with different people come from different backgrounds and all walks of life. And before I became a mentor I just took life as what was presented to me what I experienced personally. And then when I got into the mentorship I was able to step in the role. I was able to be empathetic. I was able to step and put my feet in somebody else's shoes to understand their background their walk of life and the things that go through because our mentees go through a lot. And I didn't realize that and I said like I wish I would have before but I mean I'm glad I was able to grow and mature well within the program."

Additionally, mentors expressed the importance of being able to listen in order to foster a successful relationship with the mentee. One mentor mentioned, "I learned how to be more open towards people. Because usually I'm kinda I look stand offish but I'm really not you have to get to know me. So with the mentees I had to be more open and make them feel welcome so they could talk to me about different things." Another important point for one mentor was being open-minded so one can learn from their mentees. She stated, "You never know what you might run into with your mentees … needs to have an open mind,

you're both walking into a situation where you don't know each other and you gotta get to know each other and at the same time being a mentee you might run into a couple other mentees that might you might be able to relate to but you're not having an open mind about it and you won't be able to build from wherever you're starting and have a foundation from that and just be there and absorb and be willing to listen, they're really learning but they can teach you something as well, learners mindset."

Figure 1. Mentee Perceived Factors Effecting the Mentoring Relationship
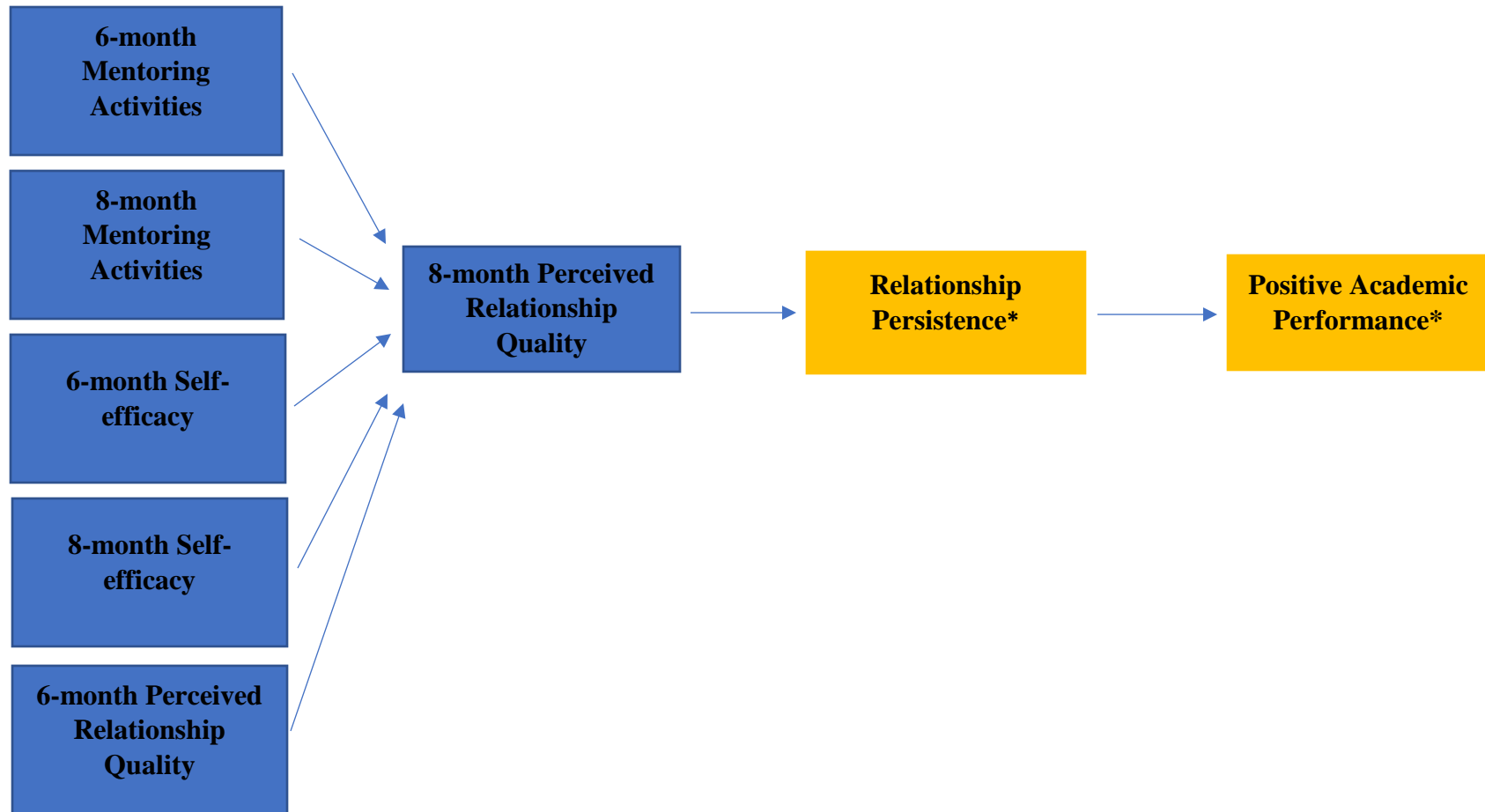
*These factors were not measured in the study.

Figure 2. Mentor Perceived Factors Effecting the Mentoring Relationship

*The mentor 6 and 8-month mentor training and support constructs are the only constructs not measured in the mentee survey.

**These factors were not measured in this study.
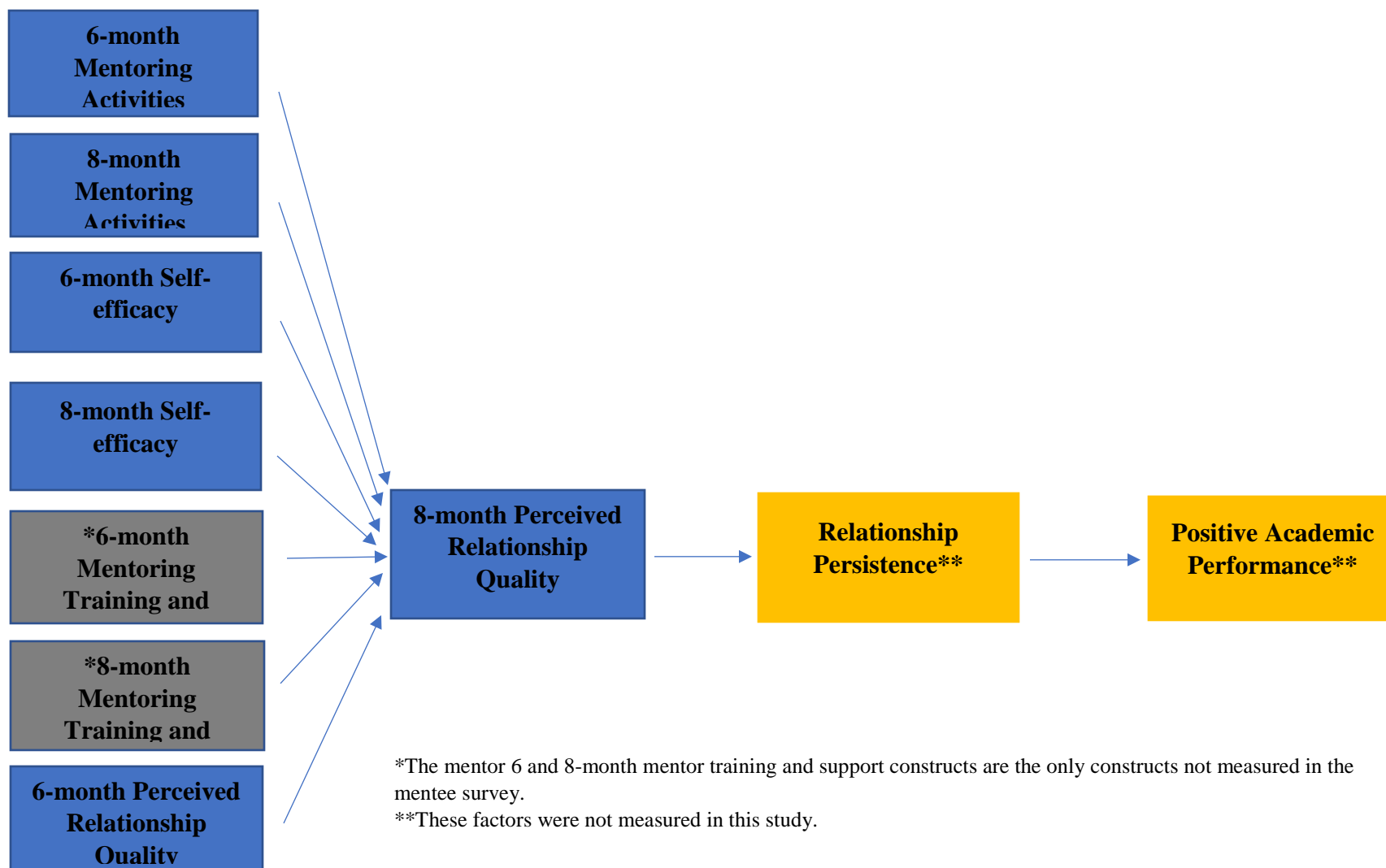
Table 5. Quantitative Survey Instruments – Survey Name, Scale Definitions, Scale Rating Scale, Scale, Cronbach's Alpha, and Time Interval Assessed

Scales	Survey Name		Definitions		Rating Scale		Cronbach's Alpha		Time Interval Assessed	
	Mentor	Mentee	Mentor	Mentee	Mentor	Mentee	Mentor	Mentee	6 Month	8 Month
Perceived Relationship Quality	Match Characteristics Questionnaire v 2.22	Youth Mentoring Survey v 1.23	Dynamics of the relationship influenced directly by the mentor and mentee	Dynamics of the relationship influenced directly by the mentor and mentee	(1) Never (2) Rarely (3) Sometimes (4) Pretty often (5) Very often (6) Always	(1) Not at all true (2) A little true (3) Pretty true (4) Very true	.84	.84	X	X
Self-Efficacy	General Self-Efficacy Scale	General Self-Efficacy Scale	Correlated to emotion, optimism, work satisfaction	Correlated to emotion, optimism, work satisfaction	(1) Not at all true (2) Hardly true (3) Moderately true (4) Exactly true	(1) Not at all true (2) Hardly true (3) Moderately true (4) Exactly true	.76-.90	.76-.90	X	X
Mentoring Activities	Match Characteristics Questionnaire v 2.22	Youth Mentoring Survey v 1.23	Mentors' priorities for mentor/mentee relationship activities	Mentee perceptions of frequency of prioritized mentor/mentee activities	(1) Not important (2) A little important (3) Pretty important (4) Very important (5) Extremely important (6) Most important	(1) Never (2) Less than half the time (3) Half the time (4) More than half the time	.81	.79	X	X
Mentor Training and Support	Match Characteristics Questionnaire v 2.22	Youth Mentoring Survey v 1.23	Dynamics not directly influenced by the	N/A	(1) Completely disagree (2) Mostly disagree	N/A	.50	N/A	X	X

			mentor/me ntee relationship		(3) Tend to disagree (4) Tend to agree (5) Mostly agree (6) Completely agree					

Table 6. Data Collection for Mentors and Mentees

	Data Collected from Mentors		Data Collected from Mentees	
	Mentors	About Mentees		
Original pool	12	51	51	
	3 trained but not assigned mentees	12 did not participate at any time point	12 did not participate at any time point	
Remaining potential participants	9	39 participated at some point	39 participated at some point	
February 2017 **6 Month Survey** (completed 6 months after their match)	9	9 mentors completed 6 month-survey on 27 mentees; 4 were incomplete but still used in final data analyses	7 completed 6 month-surveys	
April **Focus groups**	9 mentors participated in 2 focus groups 1 with 7 mentors 1 with 2 mentors		5 mentees participated in focus groups (all mentees invited to participate regardless of whether completed 6 month-surveys) All of these completed 8 month-surveys; 2 mentees participated in 6 and 8-month surveys	
April **8 Month Surveys** (completed before focus group)		9 mentors completed 8 month-survey on 31 mentees; 6 were incomplete but still used in final data analyses	6 of 7 completed 6 and 8 month-surveys 1 completed 6 month-survey only	Of the 5 mentees in focus group, all completed 8 month-survey
April **In-depth individual interviews** (conducted day of focus group)			3 mentees participated in in-depth individual interviews (all 3 completed 6 and 8 month-surveys)	
Final complete data set	9 mentors	9 mentors completed 57 6	6 mentees completed 6 and 8-month surveys	

	participated in a focus group	and 8-month surveys about mentees; 10 were incomplete but still used in final data analyses	providing data on 4 mentors; of these, 3 participated in in-depth individual interviews

Table 7. Mentor Survey Data Collection included in Final Analysis

Mentor ID#	Number of 6-month MCQ Surveys Completed on Mentees	Number of 8-month MCQ Surveys Completed on Mentees
1	2 (out of 4)	0 (out of 4)
2	5 (out of 6)	5 (out of 6)
3	1 (out of 3)	6 (out of 3)
4	4 (out of 5)	6 (out of 5)
5	3 (out of 5)	2 (out of 5)
6	5 (out of 6)	5 (out of 6)
7	6 (out of 7)	6 (out of 7)
8	1 (out of 3)	0 (out of 3)
Column total	**27 (out of 39)**	**30 (out of 39)**
Total 6 and 8-month surveys completed		**57**

Table 8. Mentee Survey Data Collection included in Final Analysis on Mentors

Mentee ID#	Number of 6-month YMS Surveys Completed on Mentors	Number of 8-month MCQ Surveys Completed on Mentors
1	1	1
2	1	0
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
Column total	**7**	**6**
Total 6 and 8-month surveys completed		**13**

Table 9. MCQ Survey Scales, Subscales, and Definitions

Scales	Subscales	Definitions
Perceived Relationship Quality	Compatibility	How much mentors feel they are well-matched with their mentees
	Handle Mentee's Issues	How much mentors feel prepared to handle mentees' issues
	Closeness	How much mentors feel close with mentees
	Discomfort	How much mentors feel mentees do not push them away
	Satisfaction	Mentors' sense of fulfillment in the relationship
	Nonacademic Support Seeking	How much mentors feel mentees seek personal support
	Academic Support Seeking	How much mentors feel mentees seek academic support
Mentoring Activities	Fun	How much mentors value hanging out and having a good time with their mentees
	Sharing	How much mentors value activities designed to forge a bond with their mentees
	Character Development	How much mentors value activities focused on mentees' maturation and psychosocial development
	Future Outlook	How much mentors value activities related to mentees' planning and preparing for their future
	Academics	How much mentors value school-related and mentally stimulating activities
Mentor Training and Support	Programmatic Support	How much mentors feel supported by the program
	Parental Support	How positively mentors feel mentees' parents influence the match
	Interference	How much mentors feel logistical and personal factors interfere with meetings

Table 10. YMS Survey Scales, Subscales, and Definitions

Scales	Subscales	Definitions
Perceived Relationship Quality	Relational	How much mentees feel happy, close, satisfied with relationship
	Instrumental Quality	How much the youth is open to support and perceives benefits from the mentor/mentee relationship
	Prescription	How much mentee does not feel that the mentor is too prescriptive
Mentoring Activities	Fun Focus	How much activities focus on hanging out and having fun
	Sharing Focus	How much activities focus on talking and sharing emotionally
	Growth	How much activities focus on academics, outlook, and character development

Table 11: Spearman's rho Correlations between Sum Scores for 8-Month Perceived Quality of the Relationship and 6-Month Perceived Quality of the Relationship, 6 and 8-Month Mentoring Activities, 6 and 8-Month Mentor Training and Support, and 6 and 8-Month Self-Efficacy for Mentors

MCQ Survey Scales	MCQ Mentor Survey Correlations							
	6-Month Perceived Quality of the Relationship	8-Month Perceived Quality of the Relationship	6-Month Mentoring Activities	8-Month Mentoring Activities	6-Month Mentor Training and Support	8-Month Mentor Training and Support	6-Month Self-Efficacy	8-Month Self-Efficacy
8-Month Perceived Quality of the Relationship	.819*	1.000	-.151	-.040	.542*	.762*	.290	-.186
Sig. (2-tailed)	.000	.	.562	.872	.017	.000	.215	.373
N	23	31	17	19	19	25	20	25

*. Correlation is significant at the .05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 12: Spearman's rho Correlations between Sum Scores for 8-Month Perceived Quality of the Relationship and 6 and 8-Month Mentoring Activities, and 6 and 8-Month Self-Efficacy for Mentees

YMS Survey Scales	YMS Mentee Survey Correlations					
	6-Month Perceived Quality of the Relationship	8-Month Perceived Quality of the Relationship	6-Month Mentoring Activities	8-Month Mentoring Activities	6-Month Self-Efficacy	8-Month Self-Efficacy
8-Month Perceived Quality of the Relationship	.771	1.000	.714*	.829*	1.000**	1.000**
Sig. (2-tailed)	.072		.111	.042	.	.
N	6	6	6	6	5	5

*. Correlation is significant at the .05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

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CHAPTER 5

DISCUSSION

Conclusions from the Study Results

In this sample of LSCC students, we found a moderate positive significant association between eight-month PRQ and six-month mentor training and support. Additionally, we found a strong significant positive association between eight-month PRQ and eight-month mentor training and support. As mentors progressed in the mentor/mentee relationship, the more mentor training and support they received the more satisfied they were with their relationship. This is consistent with the literature which focuses on providing mentors with the appropriate training and support to decrease feelings of discomfort in the mentor/mentee relationship (Crisp & Cruz, 2009; Pagan & Edwards-Wilson, 2003). We also found a strong positive association between mentor eight-month PRQ and mentor six-month PRQ.

Additionally, we found a strong positive significant association between mentee eight-month PRQ and six-month and eight-month self-efficacy. This is consistent with the literature indicating that mentees participating in mentor programs positively impacts their self-efficacy, improves the mentor/mentee relationship, promotes positive personal and professional development, and makes them feel more connected with the resources to help them achieve their goals (Bandura, 1977; Kram, 1983; Propst & Koester, 1998; Winston & Hartfield, 2004). It is important to note that 1.0 correlations indicate the strength and

direction of a relationship between two factors; however, it does not indicate causality (Chok, 2010; Zou, Tuncali & Silverman, 2003). We also found a strong positive significant association between eight-month PRQ and eight-month mentoring activities. This indicates mentees who feel they are having fun, who feel comfortable sharing information, and perceive growth in their mentor/mentee relationship increases their overall PRQ of the relationship. Mentoring research emphasizes the need for mentees to feel their mentor/mentee relationship is authentic and not prescribed where they are not consistently being lectured but also having fun (Harris & Nakkula, 2008; Rodger & Tremblay, 2003). Future research could identify areas more specific to each of the constructs. This could potentially provide a more in-depth analysis of which categories within each subscale is more important rather than looking at each construct in its entirety.

Our study also contributes to the literature by providing additional information about the PRQ of the mentor/mentee relationship assessed via focus groups and in-depth individual interviews. Consistent themes across focus groups and in-depth individual interviews included the need for mentors and mentees to effectively communicate and make time to build the relationship. Mentors additionally focused on remaining open minded when meeting new people and/or when being presented with opinions that differ from one's own as well as a need for mentors to be patient with mentees.

Effective communication from a mentor point of view depended upon making sure program staff successfully vetted mentee participants - identifying mentees who wanted to be actively engaged in the program. Additionally, mentors expressed for program staff to make sure future mentors knew about the time commitment for the program. This is consistent with the literature indicating the need for program staff to provide mentors and

mentees with a detailed overview of the program before they commit (Mentor, 2015). Mentees expressed a need for their mentors to communicate with them about more opportunities around campus, so they can engage in activities beneficial to their success at the college.

Mentees also focused more on mentors making more time in their schedules to meet face-to-face. They saw this as a very valuable, and necessary component of the successful relationship. From a mentor prospective, they felt it was important to be patient with their mentees, even the ones who were not actively participating, emphasizing that they wanted to make sure mentees knew they were there to help them. Lastly, mentors and mentees expressed the need for being open minded. Mentors explicitly felt mentees were not willing to listen to feedback and that this was important to building a persistent relationship. Further research could focus on the most effective way of fostering these qualities and skills within mentoring programs.

Limitations

The findings in this study should be understood based upon our study limitations. The demographics of our sample are very limited and not generalizable to a larger demographic group. Our sample included only first and second year students who all identified as African American, because the program was implemented at a predominantly African American traditional two-year community college. Additionally, mentors completed multiple surveys during one sitting for each of their mentees. This could have biased the results with mentors indicating the same scores across multiple surveys; however, we compared sum scores to verify that there were variations in scores. The GSE scale was included on each of the MCQ surveys, and we used the first six-month and eight-

month GSE scales they submitted in the final data analyses. This could have biased the results because multiple mentors selected varying scores although in the same sitting; however, further analysis confirmed a one to two-point difference in scores.

Additionally, there were four six-month and six eight-month MCQ surveys included in the final analyses that were incomplete; however, the Spearman's rho correlation omits cases with missing data and analyzes data that fits the appropriate parameters for the analysis (Dong & Peng, 2013; Kang, 2013). Also, the analyses of the results were limited based on the small sample size for the pilot program; however, the results may help create more meaningful mentoring programs in future research. Lastly, focus groups and in-depth individual interviews with mentees only yielded a small percentage of actual program participants.

<div align="center">Lessons Learned</div>

The information we learned while implementing this program can guide future mentor programs at community colleges. Although the pilot program yielded a small data set, program staff recommendations were consistent with mentor and mentee recommendations elicited in focus groups and in-depth individual interviews. Recommendations were identified for each of the components of the program from the program staff perspectives (see Table 13).

Recruitment

Recruitment was a tedious process, specifically when identifying prospective mentees. Mentees were first-year students with limited to no relationship with LSCC faculty and staff, so it was hard to identify the best venues and marketing strategies to

engage them and portray the importance of participating in a mentoring program with so many other competing activities the freshmen students encounter. We learned that it is important to begin recruitment of new students as early as possible, potentially at orientation sessions; however, orientation sessions are scheduled months in advance and leave little room for adjustments as dates get closer. In turn, it is imperative to let the orientation organizers know in advance that you would like to set up a table or provide an information session about a newly developed mentoring program tailored for incoming students. The alternative was to have program staff pass out flyers. We also learned it is crucial to involve mentors in the recruitment process to create a sense of buy-in among potential mentees as well as mentors. Having a student face present to discuss the mentor program with students, seemed more effective than having program staff serve as the face of the program. With this in mind, it is important to make sure mentors are identified early in the process, so they can participate in promoting the program throughout the summer during freshmen programs.

Mentor Training

Although many of the mentors really enjoyed the mentor training, we thought it would be beneficial to have a training that was more aligned with the program goals for the second year of the program. The initial training focused more on the general components of mentoring. Based on the experiences of our mentors, we thought it necessary to incorporate more role-playing activities tailored toward real-life scenarios. For example, have mentors role-play how to effectively engage a mentee who does not seem interested in meeting up with their mentor. As we learned in the first year, mentees

may have a variety of specific needs based on their background (i.e., financial aid, disability status).

Matching Process

The matching process is one of the most important components of a mentor program, with most matches ending prematurely due to inherent issues within the match. The only criteria we initially used to match participants were based on gender. The applications for both mentees and mentors did not ask for detailed information to ascertain better criteria to match participants, which could explain the low participation rate among mentees. Matching criteria could consist of additional characteristics such as strengths, goals for interaction/relationship, interests, personality, area of study, minor, and weaknesses.

Participant Incentives

Incentives for mentors to participate in the program directly impacted their participation. When mentors were made aware that they were not meeting the program requirements via staff monthly emails and were at risk of receiving a reduced payment or none at all, they were more likely to complete the tasks in a timely fashion. Many mentors expressed how much the incentives helped them with their financial responsibilities outside of school. They also mentioned that although they would still be a mentor without an incentive, it helped them prioritize their responsibilities to make sure they met the requirements for the program. Program staff also felt incentives were a big component of mentors completing all the necessary data requirements for the program.

Alternatively, the lack of incentives at the beginning of the program for mentees were detrimental to their participation. Early in the program, staff noticed mentees were not as active as mentors. Many of the mentees were not meeting with their mentors, were unresponsive to emails, and were not participating in monthly events. This made it very hard for mentors to meet their bi-monthly requirement of checking in with their mentees. The lack of incentives also made it hard for mentees to stay engaged throughout the duration of the program especially if they did not see the long-term benefit of participating. Once the $25 gift cards were implemented in January 2017, we did notice an increase in mentee participation. However, because many mentees were already disengaged, it was hard to reengage them with gift cards. We recommend offering incentives at the beginning for mentors and mentees to keep them engaged in the program recognizing their other conflicting commitments as students.

Monthly Professional Development Seminars

The monthly professional development events were an informative addition to the program. Both mentors and mentees found them very interesting. Program staff decided some of the topics could be more streamlined and less prescriptive. For example, we could offer more laid-back programming that would allow mentees and mentors to interact with each other less formally, such as a skate or movie night.

Mentor Weekly Check-Ins

Mentor check-ins were a way for program staff to verify mentors were meeting the program objectives; however, we learned it may also be beneficial to have meetings with mentees to verify information provided from mentors. We learned at the end of our

program that some mentors would write reports about meeting with their mentees, but mentees would report that they never met their mentor. In these situations, it is important to check in with both mentors and mentees throughout the duration of the program to check on the match but also to verify whether meetings are taking place.

Blackboard Curriculum

The Blackboard curriculum seemed to be an area of concern for mentors and program staff. The curriculum consisted of 26 lessons that were very tedious. It was also more focused on being successful in college rather than emphasizing strategies to be successful as a mentor. With the added quizzes and discussion boards, we quickly realized that these lessons became more a deterrent than a method of promoting knowledge gain. Future recommendations include shortening the curriculum to 13 lessons and tying them in more effectively to the other program components to create more synergy around program outcomes. For example, the professional development event for October could be about living in successful community, and the seven Blackboard lessons associated with the topic could be assigned to mentors for the month to reinforce what was discussed in the professional development event.

Mentor Lab Time

Based upon feedback from program staff and mentors, mentor lab time was beneficial and did not require too much additional effort or time. It allowed mentors time to catch up on their program responsibilities while also fostering free time to address any areas of improvement they desired. This was also a time for mentors to meet with program staff to discuss issues they were having with their mentees, school concerns, and/or address

any questions they had about the program. Additionally, mentors used this as a time to meet with their mentees for the month.

Additionally, program staff identified key strategies for addressing concerns from year one of program implementation, particularly addressing issues regarding recruitment, mentor training, matching process, monthly professional development seminars, weekly mentor check-ins, Blackboard curriculum, and the mentor designated lab times. Consistent with mentoring best practices, lessons learned from recruitment indicate the need to portray the importance of participating in a mentoring program for both mentors and mentees (Garringer, Kupersmidt, Rhodes, Stelter & Tai, 2015). This is a crucial step, specifically for incoming freshmen who may not see the benefits of participating in a mentoring program their first year. Moreover, linking students with campus resources increases student success at institutions of higher learning by creating a network of support for students making the transition from high school to college (Grossman & Rhodes, 2002).

Equipping mentors with the skills necessary to sustain a positive mentor/mentee relationship via succinct training is another important component of a mentoring program. Consistent with best practices, program staff identified recommendations for future trainings to be more tailored to lessons learned during year one of program implementation. For example, providing training focused on program requirements, mentor goals and expectations for the mentee, mentor obligations, program support services, and role-playing opportunities could provide mentors with the tools necessary to effectively engage with their mentee (Garringer, Kupersmidt, Rhodes, Stelter & Tai, 2015). Moreover, providing training for mentees was an important lesson learned. Mentoring programs often do not provide training for mentees, but we recognized the importance of providing

trainings that emphasized program requirements as well as goals and expectations to increase buy-in from mentees.

Matching was also an important program component staff identified as a crucial area of improvement. Consistent with other mentor programs, it is important to match mentors and mentees effectively to boost program effects. Matching should consider varied characteristics, such as availability, gender, personality, goals, and strengths (Garringer, Kupersmidt, Rhodes, Stelter & Tai, 2015). These matching criteria can be added within program applications to make the process more seamless.

We added components to our program, such as monthly professional development events, weekly check-ins, Blackboard curriculum, and lab times that often vary among mentor programs. We found these programs to be beneficial to our participants but did overall recognize the additional time constraints it placed on our mentors who already had constrained schedules. Our recommendations addressed maintaining these programs but significantly reducing the Blackboard curriculum lessons and streamlining them to be more consistent with the mentor training.

Table 13
Lessons Learned from the *Blueprints for College Success* Mentoring Program

Program Component	Lessons Learned	Future Recommendations
Recruitment	• Important to identify the best marketing campaigns to engage first-year students • Important to allow mentors to be the face of the program rather than program staff	• Engage first-year students via social network platforms and the LSCC website. • Mentors should participate in all recruitment activities to promote program.
Mentor Training	• Mentor training provided very valuable information. • Ongoing mentor training is important throughout the duration of the program.	• Provide realistic role-playing scenarios. • As problems arise during the match, additional trainings may be necessary.
Matching	• Matching is one of the most important program components. • Addressing match issues on an ongoing basis is necessary for positive relationships.	• Provide applications that assess a variety of potential matching criteria. • If/when match issues arise, identify why and address concerns as necessary.
Participant Incentives	• Beneficial to mentor and mentee • Beneficial to meeting overall program goals	• Offer incentives for both mentors and mentees at the beginning of the program
Monthly Professional Development Seminars	• Beneficial to mentor and mentee personal growth • Mentors and mentees valued spending time with all participants of the program during these sessions.	• Ask mentors and mentees for topic suggestions. • Provide less prescriptive sessions that allow participants more opportunities to have fun.
Weekly Mentor Check-ins	• Allows program staff to ascertain whether program outcomes are being met.	• May be beneficial to check in with mentees to validate mentor check-ins.

	• Provides mentors the opportunity to discuss any issues they are having.	• Take more time during these sessions to probe for any underlying issues.
Blackboard Curriculum	• Time intensive	• Potentially reduce the number of lessons.
	• Not relevant to program outcomes	• Align curriculum to program outcomes and activities.
Lab Time	• Beneficial and not too time intensive	• Keep requirements simple by allowing mentors free time.

Implications and Recommendations

One of the goals of this dissertation was to collect and analyze data on mentoring programs implemented in a community college setting. This expands on the current literature that focuses more often on mentoring at four-year institutions. It was important to do this as it is clear in the literature that minority students do not perform as well as other students from different racial backgrounds. Additionally, many minority students are first generation college students with limited experience on factors that increase the likelihood of succeeding at institutions of higher education (Bailey & Dynarski, 2012; Dale & Krueger, 2011). Although there is a clear need for mentoring programs that enhance the likelihood an individual graduates from college, it is important that these programs are using best practices to maximize effectiveness (Crisp & Cruz, 2009; Grossman & Rhodes, 2002; Kram, 1985). Our literature review further exemplified the need for consistent definitions to streamline the efforts of mentoring programs making them more amenable to rigorous evaluations (Crisp & Cruz, 2009; Grossman & Rhodes, 2002; Kram, 1985). Additionally, the most effective mentoring programs included a relevant theory and/or framework to guide program implementation (Eller, Elise & Feurer, 2014; Scott, 1992; Olga, 1996). Because mentoring program results are influenced by a variety of program factors (e.g., including the type, trainings provided, and role of the mentor and mentee), it is essential to identify the most useful theories and/or frameworks to guide program implementation (Campbell & Campbell, 1997; Good, Halpin & Halpin, 2000; Kosoko-Lasaki Mentor 2015; Nakkula & Harris, 2005; Nakkula & Harris, 2013; Sonnino & Voytko, 2006).

To address the overarching goal of identifying beneficial characteristics of the mentoring relationship, a mixed-methods approach was utilized. First, we explored the relationship between the mentor's PRQ and other factors including his or her general self-efficacy, mentoring activities carried out, and mentor training and support. Additionally, for mentees, we examined the relationship between their PRQ and their general self-efficacy, and between their PRQ and mentoring activities. We used data gathered from the YMS (7 surveys) and MCQ surveys (57 surveys) of mentees and mentors respectively. To further understand and explore the dynamics and underlying factors that may be impacting the mentoring relationship and outcomes, we conducted focus groups (three focus groups that included two with mentors (n=9); and one with mentees (n=5)), and in-depth interviews (n=3) to assess the various aspect of the mentor-mentee relationship, both beneficial and negative.

Overall, study findings suggest that there is a significant relationship between positive mentee PRQ and their self-efficacy, indicating the need to empower mentees throughout the length of the mentor/mentee relationship. Additionally, we found positive associations between each of the constructs indicating the need to address each characteristic of the relationship in order to enhance the benefits to both mentees and mentors. High levels of six-month mentor trainings and support were associated with higher levels of eight-month PRQ. This was also true for high levels of eight-month mentor trainings and support and eight-month PRQ. Consistent with the literature is that longer mentor/mentee relationships prove to be beneficial for both mentor and mentee, with mentor increased likelihood of not persisting in the relationship. One way to strengthen the relationship and encourage the mentor to persist is to increase their opportunities for

training and support. These increased opportunities could lead to a more fulfilling and persistent relationship because the mentors feel they are equipped to handle the unique needs of their mentee.

The data yielded different results for mentees. We identified the association of a high level of self-efficacy at six and eight months, with a more positive PRQ. Consistent in the literature is that mentor programs positively affect mentee self-efficacy and overall improves the mentor/mentee relationship (Bandura, 1977; Kram, 1983; Propst & Koester, 1998; Winston & Hartsfield, 2004). Additionally, mentees who perceived a greater sense of satisfaction with their mentoring activities at eight-months also had higher levels of positive PRQ at eight-months. Creating effective methods of engagement, and promoting self-confidence, may be key to a more fulfilling relationship with a mentor. This sense of fulfillment can make the relationship less prescriptive and potentially result in a more engaged mentee who is more willing to listen and practice tips and suggestions their mentor provides. This serves as a mutual benefit for mentors and mentees to promote more persistent, positive relationships – potentially effecting long-term positive academic outcomes (Harris & Nakkula, 2008; Rodgers & Tremblay, 2003).

We also were able to identify additional needs expressed by mentors and mentees through in-depth individual interviews and focus groups. For example, mentors and mentees valued their time. Mentors were more focused on making sure prospective mentors knew the time commitments necessary to be a mentor; whereas, mentees valued spending quality time with their mentors. They expressed the need to spend time to further the relationship and create a mutual bond between them. Additionally, mentors expressed the importance of patience when meeting new mentees. They expressed the need for program

staff to screen participants to make sure they were really interested in the program. They also mentioned it was necessary to have patience with mentees throughout the mentor/mentee relationship, because their engagement may not be consistent. This rich qualitative data provides a more detailed, personal experience of both mentors and mentees. These expressed needs are important to identify at the beginning of a mentoring program and can serve as a way of selecting a well-rounded group of mentors and mentees who are wholly committed to the mentoring relationship. These unique qualities and concerns can be integrated into the program model potentially creating positive relationships at the onset of a program to promote individual self-efficacy, and the skills necessary to handle issues that may arise in a mentor/mentee relationship.

Lastly, it is important to focus on important strategies we learned while implementing this mentoring program. These strategies can be used at the onset to promote effective methods of engaging both mentors and mentees. In turn, increasing the likelihood of persisting in the relationship. With limited funding, it is important to implement strategies that result in the most benefit. Some key strategies we learned included addressing issues regarding recruitment, mentor training, matching procedures, monthly professional development seminars, weekly mentor check-ins, Blackboard curriculum, and the mentor designated lab times. Most importantly, it is imperative for program staff to promote the importance of participating in a mentoring program for both mentors and mentees (Garringer, Kupersmidt, Rhodes, Stelter & Tai, 2015). The beneficial relationship qualities assessed earlier in the dissertation can be emphasized as important benefits of the program. Moreover, program staff can identify areas of support (e.g., trainings, peer networks) that can be established or created to help mentors and mentees throughout the

program. This was a very important gap to be filled in the literature. Oftentimes, training is emphasized for mentors, but mentor trainings seems to be just as important. These trainings can emphasize program requirements as well as goals and expectations to increase buy-in from mentees.

This dissertation contributes to the literature in identifying effective means for furthering the mentor/mentee relationship for mentoring programs at community colleges. It presents lessons learned so program staff can effectively and efficiently gauge participant success and make the necessary adjustments. It also provides a synopsis of how important it is to engage both the mentor and mentee in the relationship to make it a fulfilling and lasting experience. Future research could identify areas more specific to each of the relationship constructs we evaluated (PRQ, mentor training and support, mentoring activities, self-efficacy). This could potentially provide a more in-depth analysis of which categories within each subscale is more important rather than looking at each construct in its entirety.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

Form 4: IRB Approval Form
Identification and Certification of Research
Projects Involving Human Subjects

UAB's Institutional Review Boards for Human Use (IRBs) have an approved Federalwide Assurance with the Office for Human Research Protections (OHRP). The Assurance number is FWA00005960 and it expires on November 8, 2021. The UAB IRBs are also in compliance with 21 CFR Parts 50 and 56.

Principal Investigator: Washington, Teneasha

Co-Investigator(s):

Protocol Number: **X170117002**

Protocol Title: *Blueprints for College Success Mentoring Program*

The IRB reviewed and approved the above named project on __3/31/17__ . The review was conducted in accordance with UAB's Assurance of Compliance approved by the Department of Health and Human Services. This Project will be subject to Annual continuing review as provided in that Assurance.

This project received EXPEDITED review.

IRB Approval Date: __3/31/17__

Date IRB Approval Issued: __3/31/17__

IRB Approval No Longer Valid On: __3/31/18__

Marguerite Kinney

Expedited Reviewer
Member - Institutional Review Board
for Human Use (IRB)

Investigators please note:

The IRB approved consent form used in the study must contain the IRB approval date and expiration date.

IRB approval is given for one year unless otherwise noted. For projects subject to annual review research activities may not continue past the one year anniversary of the IRB approval date.

Any modifications in the study methodology, protocol and/or consent form must be submitted for review and approval to the IRB prior to implementation.

Adverse Events and/or unanticipated risks to subjects or others at UAB or other participating institutions must be reported promptly to the IRB.

APPENDIX   B

MATCH CHARACTERISTICS QUESTIONNAIRE (MCQ)

APPLIED RESEARCH CONSULTING

OFFICE USE ONLY: Match ID:_____ DOM:_____ Mentee's age:_____ GIS:_____

Match Type: CB □₁ / SB □₂ / SB+ □₃ Other Current Match? No □₀ *If yes*, CB □₁ / SB □₂ / SB+ □₃

Mentee's Ethnicity: White □₁ / Black □₂ / Hispanic □₃ / Asian □₄ / Native American □₅ / Other □₆

Name:_____ Date:_____ Gender: M □₀ / F □₁ Age:_____

Section I: How do you feel about your match?

For each statement below, please say how often it is true for you by choosing a number from the scale at the bottom of the page. If you do not think a question applies to you or if it does not make sense to you, please leave it blank.

1. My mentee is open with me (shares thoughts and feelings).	1 2 3 4 5 6
2. I feel like the match is getting stronger.	1 2 3 4 5 6
3. My mentee is very private about his/her life at home (does not talk to me about it).	1 2 3 4 5 6
4. My mentee asks for my opinion or advice.	1 2 3 4 5 6
5. My mentee makes me aware of his/her problems or concerns.	1 2 3 4 5 6
6. I feel distant from my mentee.	1 2 3 4 5 6
7. I feel like my mentee and I are good friends (buddies, pals).	1 2 3 4 5 6
8. I feel unsure that my mentee is getting enough out of our match.	1 2 3 4 5 6
9. My mentee asks me for help when he/she has difficult schoolwork or a major project to do.	1 2 3 4 5 6
10. My mentee avoids talking with me about problems or issues at home.	1 2 3 4 5 6
11. My mentee is open with me about his/her friends.	1 2 3 4 5 6
12. I feel awkward or uncomfortable when I'm with my mentee.	1 2 3 4 5 6
13. I feel frustrated or disappointed about how the match is going.	1 2 3 4 5 6
14. My mentee is willing to learn from me.	1 2 3 4 5 6
15. My mentee does things to push me away.	1 2 3 4 5 6
16. I feel like I am making a difference in my mentee's life.	1 2 3 4 5 6
17. My mentee seems to want my help with his/her academics.	1 2 3 4 5 6
18. My mentee talks to me about it when he/she has problems with friends or peers.	1 2 3 4 5 6
19. My mentee shows me how much he/she cares about me (says things, smiles, does things, hugs me, etc.).	1 2 3 4 5 6
20. I feel like my mentee and I have a strong bond (are close or deeply connected).	1 2 3 4 5 6
21. My mentee seems uncomfortable (or resistant) when I try to help with problems he/she may be having.	1 2 3 4 5 6
22. I can trust what my mentee tells me.	1 2 3 4 5 6

1	2	3	4	5	6
NEVER	RARELY	SOMETIMES	PRETTY OFTEN	VERY OFTEN	ALWAYS

Name:_____ Date:_____
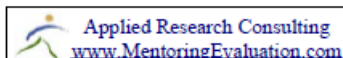
Section II: What do you focus on in your match?

Part 1. Each mentor is unique, so each has a different approach. Please help us understand your approach by listing your three most important focuses (things you want to do as a mentor). Next, rank them from one to three to tell us which is your most important focus ("1" is most important).

Your Three Most Important Focuses as a Mentor	Rank
A)	
B)	
C)	

Part 2. If the item you ranked "1" above is your most important focus, how important do you consider the focuses listed below? Please tell us how important each focus is to you by choosing a number from the scale at the bottom of the page. *Remember, there are no "right" answers—each mentor has a different approach.*

1. Sharing your life experiences with your mentee?	1 2 3 4 5 6
2. Having times when you do nothing but fun things with your mentee?	1 2 3 4 5 6
3. Getting your mentee to develop his/her character (be honest, responsible, etc.)?	1 2 3 4 5 6
4. Doing activities with your mentee that get him/her to think (like reading, puzzles, educational games, etc.)?	1 2 3 4 5 6
5. Encouraging your mentee to push beyond what is comfortable or easy (to expect more of him/herself)?	1 2 3 4 5 6
6. Focusing on feelings and emotional things with your mentee?	1 2 3 4 5 6
7. Making time to goof around, laugh, and have light-hearted fun with your mentee?	1 2 3 4 5 6
8. Teaching your mentee to manage or improve his/her behavior (control impulses, make better decisions, etc.)?	1 2 3 4 5 6
9. Doing or saying things to improve your mentee's attitude towards school (or keep it positive if it is already good)?	1 2 3 4 5 6
10. Exposing your mentee to new ideas and experiences?	1 2 3 4 5 6
11. Telling your mentee about your job?	1 2 3 4 5 6
12. Having time when you and your mentee just hang out together (no particular activity to do)?	1 2 3 4 5 6
13. Getting your mentee to care more about other people?	1 2 3 4 5 6
14. Helping your mentee with schoolwork?	1 2 3 4 5 6
15. Getting your mentee to develop stronger skills and interests?	1 2 3 4 5 6
16. Spending time just talking with your mentee?	1 2 3 4 5 6
17. Having fun (yourself) while you are with your mentee?	1 2 3 4 5 6
18. Teaching your mentee social skills (like table manners, how to meet people, etc.)?	1 2 3 4 5 6
19. Involving academics in the match?	1 2 3 4 5 6
20. Getting your mentee to think about serious issues in his/her life (school, relationships, etc.)?	1 2 3 4 5 6

1	2	3	4	5	6
NOT IMPORTANT	A LITTLE IMPORTANT	PRETTY IMPORTANT	VERY IMPORTANT	EXTREMELY IMPORTANT	MOST IMPORTANT

Name:_____ Date:_____   Applied Research Consulting
www.MentoringEvaluation.com

Section III: What is your match like?

For each statement below, please say how much you agree by choosing a number from the scale at the bottom of the page.

1. My mentee and I hit it off right away.	1 2 3 4 5 6
2. My friends and family are glad I am a mentor.	1 2 3 4 5 6
3. I am so busy that it is difficult for me to see my mentee regularly.	1 2 3 4 5 6
4. I think I might be a better mentor for a student who had fewer problems (or less severe).	1 2 3 4 5 6
5. My mentee's parents/guardians are actively involved with our match.	1 2 3 4 5 6
6. The program that made my match has provided training that helps me be a better mentor.	1 2 3 4 5 6
7. My mentee wishes I were different (younger/older, man/woman, etc.).	1 2 3 4 5 6
8. Being a part of this match has meant I can't spend as much time as I would like with friends or family.	1 2 3 4 5 6
9. My mentee is so busy that it is hard to schedule with him/her.	1 2 3 4 5 6
10. My mentee needs more from me than I can give.	1 2 3 4 5 6
11. My mentee's parents/guardians strongly influence our match.	1 2 3 4 5 6
12. I get regular guidance/supervision from staff at the program that made my match.	1 2 3 4 5 6
13. My mentee and I have similar interests.	1 2 3 4 5 6
14. My friends and family support my efforts as a mentor (encourage me, help me come up with ideas for activities, etc.).	1 2 3 4 5 6
15. The distance I have to travel to see my mentee is a problem for me.	1 2 3 4 5 6
16. I have had experiences that help me understand the important challenges and issues in my mentee's life.	1 2 3 4 5 6
17. My mentee's parents/guardians interfere with our match.	1 2 3 4 5 6
18. The support I get from the mentoring program makes me a better mentor.	1 2 3 4 5 6
19. My background makes it easy for me to relate with my mentee.	1 2 3 4 5 6
20. My being a mentor has had a negative effect on my relationships with friends or family.	1 2 3 4 5 6
21. Issues related to money affect the time I can spend with my mentee.	1 2 3 4 5 6
22. It is hard for me to deal with my mentee's behavior.	1 2 3 4 5 6
23. It is hard for me to get in touch with my mentee's parents/guardians.	1 2 3 4 5 6
24. The mentoring program provides special activities or events that I can go to with my mentee.	1 2 3 4 5 6
25. I wish I had a different type of mentee (younger/older, boy/girl, more/less physical, etc.).	1 2 3 4 5 6
26. My friends and family do volunteer activities.	1 2 3 4 5 6
27. I think my mentee and I are a good match for each other.	1 2 3 4 5 6

1	2	3	4	5	6
COMPLETELY DISAGREE	MOSTLY DISAGREE	TEND TO DISAGREE	TEND TO AGREE	MOSTLY AGREE	COMPLETELY AGREE

APPENDIX   C

YOUTH MENTORING SURVEY (YMS)

Youth Mentoring Survey, *v1.22*
© 2008

John Harris, Applied Research Consulting
Michael Nakkula, Project IF "Inventing the Future"

**OFFICE USE ONLY: Match ID:**_____ **DOM:** _____ **Has Other Active Matches?** Y □₀ / N □₁

Name:_____ **Date:**_____ **How old are you?**_____ **I am a: BOY □₀ or a GIRL □₁**

How does your match feel? For each sentence, please choose a number from the scale below to say how true it is for you.

1 = Not at all True ------- 2 = A Little True --------- 3 = Pretty True ---------- 4 = Very True

1. I talk with my mentor when I have problems or things that worry me.	1 2 3 4	
2. My mentor lets me choose what we do, or else we choose it together.	1 2 3 4	
3. I have learned a lot from my mentor.	1 2 3 4	
4. My mentor makes me happy.	1 2 3 4	
5. My mentor and I hit it off right away (liked each other quickly).	1 2 3 4	
6. My mentor and I are close (very good friends).	1 2 3 4	
7. I just want my mentor to be fun, not someone who helps with schoolwork or problems.	1 2 3 4	
8. My mentor focuses too much on school.	1 2 3 4	
9. My mentor makes me feel special.	1 2 3 4	
10. My mentor is a good match for me.	1 2 3 4	
11. I am doing better at school because of my mentor's help.	1 2 3 4	
12. I know a lot about my mentor's life (his/her family, job, etc.).	1 2 3 4	
13. I want my mentor to teach me how to do things.	1 2 3 4	
14. I wish my mentor would not try so hard to get me to talk about things I don't want to talk about.	1 2 3 4	
15. My mentor has helped me with problems in my life.	1 2 3 4	
16. I can always count on my mentor (to show up, to do what he/she promises, etc.).	1 2 3 4	
17. My mentor and I like to do the same things.	1 2 3 4	
18. My mentor really cares about me.	1 2 3 4	
19. I am willing to try new things that my mentor suggests (foods, activities, etc.).	1 2 3 4	
20. I wish my mentor would not get on my case so much (about how I act, what I wear, etc.).	1 2 3 4	
21. My mentor helps me get in less trouble (make better decisions, behave better, etc.).	1 2 3 4	
22. I get to see my mentor regularly.	1 2 3 4	
23. My mentor and I like to talk about the same things.	1 2 3 4	
24. My mentor knows what is going on in my life.	1 2 3 4	
25. I want my mentor to help me do better at school.	1 2 3 4	
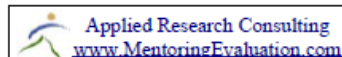
SECTION 2: What do you do with your mentor?

Directions: Please choose a number from the scale below to tell us how often you do different things with your mentor.

1=Never ------ 2=Less than half the time ------ 3=Half the time ------ 4=More than half the time ------ 5=Every time

1. Do activities that are really fun?	1 2 3 4 5
2. Talk about things you hope will happen in your life (your hopes and dreams)?	1 2 3 4 5
3. Do new things--things you never did before you got matched?	1 2 3 4 5
4. Goof around and do things that make you laugh?	1 2 3 4 5
5. Talk about problems you have or things that worry you?	1 2 3 4 5
6. Talk about how you are doing at school?	1 2 3 4 5
7. Just hang out and do things like watch tv, eat, or play games together?	1 2 3 4 5
8. Talk together about kids you know (friends, brothers/sisters, neighbors, etc.)?	1 2 3 4 5
9. Talk about how to behave well and stay out of trouble (self-control, making better decisions, etc.)?	1 2 3 4 5
10. Do things that are boring or that you do not like.	1 2 3 4 5
11. Talk about good things that happen to you (things that make you happy)?	1 2 3 4 5
12. Learn about things that interest you (Interests are things you like or things that can keep your attention).	1 2 3 4 5
13. Do the thing that you really wanted to do that day (your top choice)?	1 2 3 4 5
14. Talk about any bad things that happen in your life?	1 2 3 4 5
15. Work on school assignments or projects together?	1 2 3 4 5
16. Do something that is a big deal, like traveling or going to a special event?	1 2 3 4 5
17. Talk about the things you care about the most?	1 2 3 4 5
18. Talk about how to be a good person (being honest, responsible, etc.)?	1 2 3 4 5
19. Do activities with kids you know (friends, brothers/sisters, neighbors, etc.)?	1 2 3 4 5
20. Go places you had never been before you got matched?	1 2 3 4 5
21. Talk about your family (how you're getting along with them, what it's like at home, etc.)?	1 2 3 4 5
22. Do activities that teach you something or make you think (like reading, puzzles, educational games, etc.)?	1 2 3 4 5

23. **Where do you meet with your mentor?** *(check all that apply)*
    Email/Phone ☐₁   In school ☐₁   At a supervised site (other than school) ☐₂   Wherever we choose ☐₃

24. **Over the past few months, how often have you** *usually* **gotten to see your mentor?**
    At least once a week ☐₁   At least twice a month ☐₂   Once a month ☐₃   Less than once a month ☐₄

25. **When you get together with your mentor, how much time do you** *usually* **spend together?**
    Most of the day ☐₁   About half a day ☐₂   A few hours ☐₃   One hour or less ☐₄

APPENDIX   D

GENERAL SELF-EFFICACY SCALE (GSE)

General Self-Efficacy Scale (GSE)

About: This scale is a self-report measure of self-efficacy.

Items: 10

Reliability:
Internal reliability for GSE = Cronbach's alphas between .76 and .90

Validity:
The General Self-Efficacy Scale is correlated to emotion, optimism, work satisfaction. Negative coefficients were found for depression, stress, health complaints, burnout, and anxiety.

Scoring:

	Not at all true	Hardly true	Moderately true	Exactly true
All questions	1	2	3	4

The total score is calculated by finding the sum of the all items. For the GSE, the total score ranges between 10 and 40, with a higher score indicating more self-efficacy.

References:

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, UK: NFER-NELSON.

General Self-Efficacy Scale (GSE)

	Not at all true	Hardly true	Moderately true	Exactly true
1. I can always manage to solve difficult problems if I try hard enough	☐	☐	☐	☐
2. If someone opposes me, I can find the means and ways to get what I want.	☐	☐	☐	☐
3. It is easy for me to stick to my aims and accomplish my goals.	☐	☐	☐	☐
4. I am confident that I could deal efficiently with unexpected events.	☐	☐	☐	☐
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.	☐	☐	☐	☐
6. I can solve most problems if I invest the necessary effort.	☐	☐	☐	☐
7. I can remain calm when facing difficulties because I can rely on my coping abilities.	☐	☐	☐	☐
8. When I am confronted with a problem, I can usually find several solutions.	☐	☐	☐	☐
9. If I am in trouble, I can usually think of a solution	☐	☐	☐	☐
10. I can usually handle whatever comes my way.	☐	☐	☐	☐

APPENDIX   E

MODERATOR GUIDE FOR MENTOR FOCUS GROUP

Moderator Guide for Mentor Focus Group

Set-up

Following the completion of informed consent forms, we will engage participants in a focus group session designed to last approximately 90 minutes.

Materials required for the conduct of each group include:

- Room with tables and chairs
- Flip chart, easel and markers
- Pencils for participant use
- Response Answer Sheets

Opening Statement

We would like to thank each of you for attending the meeting this evening. Each one of you is an expert in this meeting today and your opinion is very valuable to us. In our meeting, it is important that each of you fully participate. Our success depends on every person fully sharing ideas from her own experience. The purpose of this focus group is to gather your suggestions on the Blueprints for College Success Mentoring Program and to identify successes and challenges you may have experienced while being a mentor. With the information we gather, we are refining our mentoring program so it can be as beneficial as possible to future participants. Since you participated as a mentor in the program, you have a better understanding of what these changes should be to make Lawson's mentor program as effective as possible. That is why we are talking with you.

- Let's go over a few ground rules for today before we begin: *First, your participation in this is voluntary, and you can stop at any time you would like. If you choose to stop, you will not be in trouble. If you choose to stop, your participation at Lawson State, or at UAB will not in any way be affected.*

- *We are audio taping our conversation so that we don't miss any of your important comments. This is necessary because we can't write everything down fast enough to remember it all. To maintain confidentiality, these tape recordings will be shared only with researchers and with the person who transcribes the tapes. In order to maintain a high level of confidentiality we will use only first names, or you may use a fake name.*

- *We will not be using your names, or associating your name with a particular comment or question. We ask that you refrain from discussing what particular people said here outside of this group.*

o *Although we ask everyone in the group to respect everyone's privacy and confidentiality, and not to identify anyone in the group or repeat what is said during the group discussion, please remember that other participants in the group may accidentally disclose what was said.*

- *It is important for you all to remember that there are no wrong answers. We are interested in your experience, so there cannot be wrong answers.*

Is there anything else you would like to add to the discussion guidelines?

Do you have any questions before we begin?

The first couple of questions will be related to your peer mentor experience as a whole.

Peer Mentor Experience:

1. *Please describe how you have benefitted from the Mentor experience?*
2. *What skills do you feel you have developed/grown within the Mentor experience?*
3. *What are the most valuable experiences you have had within the Mentor role?*
4. *What are the least valuable experiences you have had within the Mentor role?*
5. *Please share one success or pleasant surprise about the mentorship initiative to-date.*
6. *Is there anything else that you would like to share about your mentorship experience thus far?*

Next we will discuss the support and growth you received throughout the duration of the program.

Support and Growth:

1. *What did you find the most useful and least useful with training?*
2. *Did you feel prepared?*
3. *How were you supported in your experience as a Mentor?*
4. *Overall, how do you feel you have changed within your Peer Mentor role?*
5. *What do you love the most about being a Peer Mentor?*

Now let's discuss the relationship you had with your mentees.

Mentee Relationship:

1. *How often have you been meeting with your mentee? Where do you typically meet?*
2. *Which of the mentor "hats" are you being asked to wear? How does this compare to your expectations at the beginning of the pilot?* -- use this response to inform future orientation and mentor training topics

3. *Have you ever been "stuck" not knowing how to respond to your mentee? What did you do?* -- see if mentors are working with each other and the need for future mentor development
4. *What are the characteristics of a good mentee?* -- use this response to help inform future selection
5. *Do you think mentees understand how to best leverage their relationship with you? Please explain.* -- use this response to provide feedback to mentees
6. *What do you think the mentees are learning as participants?*

Now let's discuss the professional development workshops and recommendations for the program in the future.

Professional Development Workshops:
1. *How did you feel about the professional development events? What aspects did you like? What improvements would you suggest future learning events?*

Recommendations:

1. *What specific suggestions do you have for new Peer Mentors?*
2. *What recommendations do you have to improve the Mentor role experience?*

APPENDIX   F

MODERATOR GUIDE FOR MENTEE INDIVIDUAL INTERVIEW

Moderator Guide for Mentee Individual Interview

Set-up

Following the completion of informed consent forms, we will engage the participant in an individual interview session designed to last approximately 60 minutes.

Opening Statement

We would like to thank you for attending the meeting this evening. You are an expert in this meeting today and your opinion is very valuable to us. In our meeting, it is important that you fully participate. Our success depends on you fully sharing ideas from your own experience. The purpose of this interview is to gather your suggestions on the Blueprints for College Success Mentoring Program, to provide a clear understanding of the effectiveness of the mentoring program, identify additional recommendations for implementation of the mentoring program in the future, and identify beneficial and negative qualities of your particular mentor match. With the information we gather, we are refining our mentoring program so it can be as beneficial as possible to future participants. Since you participated as a mentee in the program, you have a better understanding of what these changes should be to make Lawson's mentor program as effective as possible. That is why we are talking with you.

- Let's go over a few ground rules for today before we begin: *First, your participation in this is voluntary, and you can stop at any time you would like. If you choose to stop, you will not be in trouble. If you choose to stop, your participation at Lawson State, or at UAB will not in any way be affected.*

- *We are audio taping our conversation so that we don't miss any of your important comments. This is necessary because we can't write everything down fast enough to remember it all. To maintain confidentiality, these tape recordings will be shared only with researchers and with the person who transcribes the tapes. In order to maintain a high level of confidentiality we will use only first names, or you may use a fake name.*
  We will not be using your names, or associating your name with a particular comment or question.

- *It is important for you to remember that there are no wrong answers. We are interested in your experience, so there cannot be wrong answers.*

Is there anything else you would like to add to the discussion guidelines?

Do you have any questions before we begin?

The first couple of questions will be related to your experience in the program as a whole.

Peer Mentor Experience:

7. *Please describe how you have benefitted from the Mentor experience?*
8. *What skills do you feel you have developed/grown within the Mentee experience?*
9. *What are the most valuable experiences you have had within the Mentee role?*
10. *What are the least valuable experiences you have had within the Mentee role?*
11. *Please share one success or pleasant surprise about the mentorship initiative to-date.*
12. *Is there anything else that you would like to share about your experience thus far?*

Next we will discuss the support and growth you received throughout the duration of the program.

Support and Growth:

6. *How were you supported in your experience as a Mentee?*
7. *Overall, how do you feel you have changed within your Mentee role?*
8. *What do you love the most about being a Mentee*

Now let's discuss the relationship you had with your mentor.

Mentor Relationship:

7. *How often have you been meeting with your mentor? Where do you typically meet?*
8. *Have your mentor ever been "stuck" not knowing how to respond to your questions? What did you do?*
9. *What are the characteristics of a good mentor?*
10. *Do you think mentors understand how to best leverage their relationship with you? Please explain.*
11. *What do you think the mentors are learning as participants?*

Now let's discuss the professional development workshops and recommendations for the program in the future.

Professional Development Workshops:
2. *How did you feel about the professional development events? What aspects did you like? What improvements would you suggest future learning events?*

Recommendations:

3. *What specific suggestions do you have for new Peer Mentors?*
4. *What specific suggestions do you have for new Peer Mentees?*

5. *What recommendations do you have to improve the Mentor role experience?*
6. *What recommendations do you have to improve the Mentee role experience?*