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EXPLORING PERCEPTIONS OF ACADEMICALLY UNDERPREPARED STUDENTS AT A SOUTHEASTERN 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 Education

BIRMINGHAM, ALABAMA

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EXPLORING PERCEPTIONS OF ACADEMICALLY UNDERPREPARED STUDENTS AT A SOUTHEASTERN COMMUNITY COLLEGE

LILLIAN Y. OWENS

EDUCATIONAL LEADERSHP

As increasing numbers of academically underprepared students are enrolling in community colleges, it is important to understand student perceptions of facilitators and challenges relative to their success in developmental course work. This study explored the lived experiences of recent high school graduates who completed three developmental courses at the community college in the study. The purpose of this research was to conduct a qualitative study to identify facilitators and challenges of successful students in the developmental course sequence. Tinto's 1975 integrative model provided a framework for the study. The study was guided by the following question: What does it mean for underprepared students to be successful in developmental course work at a community college? Additional sub-questions included: (a) what do students perceive as facilitators to being successful in developmental courses at a community college, and (b) what do students perceive as challenges of being successful in developmental courses at a community college?

A phenomenological approach of inquiry was utilized to understand the meaning that first time, full-time freshmen attached to their persistence from developmental course work to college-level course work. Twelve college students at a southeastern community college participated in comprehensive, semi-structured individual interviews. Each participant had successfully completed a developmental course in English, Reading, and Math and had persisted to college-level course work. The findings of the study supported both the student expectations and the academic integration components of Tinto's theory of academic integration model (1975, 1987, 1993). The qualitative approach also revealed that motivation of the participants enhanced academic integration.

Keywords: community college, developmental education, college preparedness,

persistence

DEDICATION

Now to Him who is able to do exceedingly abundantly above all that we ask or think, according to the power that works in us, to Him *be* glory in the church by Christ Jesus to all generations, forever and ever! Amen. (Ephesians 3:20-21 NKJV)

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Chapter 1

Introduction

Entrance to higher education requires special measures and programs to accommodate students academically unprepared for admission into these institutions. Consequently, the probability of a smooth transition and persistence in college course work for students planning to pursue higher education is drastically decreased (Bahr, 2008; Conley, 2010). As a result, more than half of all new college entrants begin their postsecondary education at community colleges (Bailey, 2009; Mellow & Heelan, 2008; Rutschow & Schneider, 2011).

Access to higher education for all Americans who desire to earn a college degree is traditionally an integral part of the promise of the American Dream. More than 92% of seventh and eighth graders report a desire to go to college (Staff, 2010). However, only 70% of these students graduate from high school, 44% enroll in college, and a mere 26% graduate from college in six years (Conley, 2012). Undoubtedly, these students believe that higher education is important to their future. Yet, nearly one-third of high school students in the United States are graduating from high school without the basic skills necessary for a successful academic life after high school (Bailey, Jeong, & Cho, 2010; Sanford, 2006; Strong American Schools, 2008).

The severity of the achievement gap between college preparedness and collegelevel course work continues to grow (Hussar & Bailey, 2009; Martorell & McFarlin, 2011). Although college preparation is a major part of most high school curricula, a high

percentage of college-going students must take developmental courses. Enrollment in these courses places the responsibility on postsecondary institutions to ensure that students have adequate skills and knowledge for success in college course work (Conley, 2007; Education Trust, 2001; Hinds, 2011; McCabe, 2005). In response, colleges and universities throughout the country offer and require remediation as a common approach to preparing large numbers of academically unprepared students (Levin & Calcagno, 2008).

Most students who enter the doors of postsecondary institutions are unaware of their unpreparedness. Consequently, they negatively perceive their need for developmental education and are often surprised that they must persist through a range of developmental courses in reading, writing, and mathematics (Fike, D., & Fike, R., 2008). For the least prepared students entering college, placement into multiple levels of developmental courses is not unusual (Bailey et al., 2010). These students may spend semesters or even years matriculating though developmental courses and invest considerable personal funds or financial aid before they can successfully enroll in college-level courses (Barnett & Fay, 2013). While developmental education offers vital access to higher education, there is increasing concern about the large numbers of students who begin their college careers in developmental education and fail to succeed through the developmental program sequences (Bailey, Jaggars, & Jenkins, 2011; Boatman, 2012; Boatman & Long, 2010).

Moreover, a significant increase of academically underprepared students and their persistence in remedial education is evident at all levels of higher education from community colleges to four-year institutions (Aldeman, 2006, Boatman & Long, 2013;

Strong American Schools, 2008). Approximately one-third of all students entering colleges or universities require some level of remediation (Byrd & McDonald, 2005), and as many as 41% of all community college freshmen nationwide are enrolled in remedial (developmental or college preparatory) courses (Boatman & Long, 2010; Daughtery, 2002; McCabe, 2003).

A major difference is that most community colleges have an open door policy with no requirements for admission, which is significantly different from four-year institutions that adhere to strict and selective admission requirements (Goldrick-Rab, 2010). The number of first-time freshmen enrolled in developmental education in the Alabama Community College System is slightly higher at 46.3%. Locally at the community college in this study, as many as 55% of first-time freshmen enroll in developmental education.

As academic unpreparedness for college becomes more prevalent, the outlook for diminished remediation rates is dismal (Bailey et al., 2010). In an effort to bring these students up to the level of skill needed for college-level courses postsecondary institutions frequently offer a range of remedial and developmental courses in reading, writing, and mathematics. These courses are designed to overcome this disparity in academic readiness for college (Fike & Fike, 2008). Remedial course work is designed to strengthen the academic skills of underprepared students so they are able to successfully persist through the developmental courses and beyond to attain their desired academic goals (Bailey et al., 2010; Illich, Hagan, & McCallister, 2004; Kolajo, 2006).

Persistence is an important issue for institutions of higher education. A large number of students enrolling in college require at least one remedial math course

(Complete College America, 2012; Long & Boatman, 2013). It is important for both students and colleges that students complete and successfully pass their remedial courses in a timely manner. Colleges invest enormous amounts of money, time, and energy to discover ways to increase student retention and success through preparatory courses that lead to college-level courses such as English composition and college algebra. Community colleges face even greater challenges as they not only provide access to all academically unprepared students but must also ensure persistence through developmental courses.

Previous researchers have demonstrated that a significant number of underprepared students enrolled in remedial course work do not persist to college-level courses and attain a certificate or a degree (Cho & Karp, 2012; Hawley & Harris, 2005). In fact, many underprepared students must complete multiple levels of developmental work before they can persist to college courses, placing these students at an even greater risk of dropping out of college. Success in remedial courses is a prerequisite for these students to continue their college education, as they must successfully pass a course to enroll for the next higher-level course (Long & Boatman, 2013).

Statement of the Problem

In an ideal world, remediation would be utilized as an effective tool to expand access for underprepared college students to become academically prepared and eventually move into college-level course work (Tierney & Garcia, 2011). Instead, developmental courses have become barriers to student success and completion as students fail to achieve their academic goal of earning a college degree. Lack of

persistence among academically underprepared students at the postsecondary level is a major concern nationally (Tierney & Garcia, 2011).

Levin and Calcagno (2008) indicated that the number of students in remediation at both two-year and four-year institutions is "alarmingly high with more than 60% of first-time community college students enrolled in at least one remedial course and only half of those students meet their academic goal" (p. 181). Persistence in developmental education has implications at the student, institutional, and national level.

Remediation affects students' time and costs, and frequently results in student frustration and discouragement for having to retake high school courses (Bailey, 2009; Venezia & Jaeger, 2013). Additionally, it takes students more time to earn a degree. For students who do not persist through developmental education courses, many drop out of college altogether. Academically underprepared students enrolled in developmental courses also face the economic disadvantage of paying for remedial courses at the same rate of tuition charged for courses that count towards their degree. Students receiving federal financial aid are at risk of reaching financial aid limitations before successful matriculation through their developmental course work, which can also negatively affect rates of persistence (Barbatis, 2010).

Students' initial reactions to placement in developmental courses are often surprise and resentment, especially if these students graduated from high school with academically solid grades. A poll of students in remedial education revealed that 37% of students have feelings of frustration, 18% were embarrassed, and 12% were angry (Strong American Schools, 2008).

At the institutional level, the retention rate of remedial students is problematic as colleges and universities must allocate resources to developmental education programs that yield little or no positive results (Bettinger & Long, 2009). Remedial programs annually add more than one billion dollars in costs to collegiate budgets (Boggs, 2010). The cost of providing remediation per student is estimated at between \$1,607 and \$2,008 in two-year institutions and \$2,025 and \$2,530 in public four-year institutions (Boggs, 2010). With such high costs for these remedial programs, it is critical that students be successful (Vandal, 2010). According to Edgecomb (2011), the funding crisis in higher education should prompt institutions, especially, community colleges to consider how resources for developmental programs are allocated.

Remediation is an essential component in facilitating the academic success of students, but the lack of student persistence has institutions working overtime to understand why some students are successful while others are not (Rutschow & Schneider, 2011). Colleges, especially community colleges, have faced significant criticism for their failure to remediate underprepared students, which subsequently has led to lower than expected graduation rates (Vandal, 2010).

The mission of community colleges is to provide open access to higher education for students who hold a high school diploma or equivalent or who have the ability to benefit from a postsecondary education (Cohen & Brawer, 2010). Thus, the pressure to succeed has increasingly been placed on community colleges to become institutionally effective in order for students in remedial education to successfully meet their academic goals and thereby improve rates of graduation among this population of students.

Nationally, the implications of high remedial retention rates are severe. With an increasing focus on growing the nation's economy, higher education has gained the attention of the country's policymakers and elected officials. President Obama declared that the United States should adopt the goal to increase the number of postsecondary degrees earned by graduates at community colleges by 2020 (White House, 2010).

To achieve a 53% increase in postsecondary degrees will require extraordinary efforts across the entire educational system. If we are to succeed in increasing the national college degree attainment rate, developmental education will most certainly play a critical role. To realize the educational benchmarks set forth by President Obama, and to fulfill the growing needs of America's workforce, it is essential that educators improve developmental education (American Graduation Initiative, 2011).

Students in America's educational system are assaulted by messages of failure and unpreparedness (Deil-Amen, 2011). This negative message is ironic considering that these same students may very well be the ones who will determine this country's educational success. The educational system must make potential students feel wanted and integral to the academic process, and it must make them, in practical reality, ready for college-level work (Tierney & Garcia, 2011). To ensure that academically underprepared students thrive, institutions must recognize the personal needs of these students. One strategy for building successful programs is exploring the experiences of the most successful students in developmental programs (Rutschow & Schneider, 2011).

There are numerous reasons why students do not persist through remedial courses and fail to complete postsecondary degrees. Explanations include demographic, personal, and academic variables (Engle & Tinto, 2008). Engle and Tinto (2008) indicated that

demographic variables such as high school GPA, gender, college preparatory courses, and parents' level of education are related to persistence. Huber (2004) observed that underprepared students who lack basic skills had trouble comprehending college-level courses, which impaired their ability to make academic progress and attain their educational goals. Perin (2006) affirmed this observation and found that while many students in remedial education successfully completed their secondary education, a large number of students who lacked the basic literacy and mathematical skills failed to persist through developmental course work at community colleges.

Conley (2009) suggested that the academic preparedness and success of students through remedial course work is also predicted by students' behavioral attributes. As the number of graduating high school students who are unprepared for college increases, it is important to understand students' perceptions of their level of academic preparation for successful completion of remedial course work.

Purpose of the Study

The purpose of this qualitative study was to explore the perceptions of academically underprepared students who have successfully completed developmental courses at a southeastern multi-campus community college. The study aimed to provide a greater understanding of the student experience in developmental courses.

Research Questions

This study was guided by one primary question: What does it mean for academically underprepared students to be successful in developmental course work at a community college? Additional sub-questions included:

- 1. What do students perceive as facilitators to being successful in developmental courses at a community college?
- 2. What do students perceive as challenges of being successful in developmental courses at a community college?

Significance of the Study

The focal point of this study is a topic that is critical to community colleges across the country. Results of this phenomenological study have the potential to contribute unique insights into the perceptions and experiences of students who enter college academically unprepared yet successfully matriculate through developmental courses to college-level course work. As enrollment in higher education continues to rise, it becomes increasingly important to provide assistance to those who need academic support, especially students who enter college with deficit skills.

The success of academically unprepared students depends on an institution's capability to identify barriers to student success as well as its ability to recognize the positive attributes which contribute to student persistence. Existing research on student persistence of students in developmental education has primarily focused on describing and understanding the problem statistically (Amy & Long, 1998; Bettinger & Long, 2005, 2009; Levin & Calgano, 2008). However, exploring student characteristics may provide information about barriers, motivational issues, background and cultural factors, and the overall impact of student learning experiences and student persistence. Further, research that connects perspectives and attitudes of academically underprepared students with research on persistence in developmental programs may assist community colleges in improving access and academic achievement of these students.

Findings from previous researchers compared the impact a student's high school experience has on their enrollment in remedial course work (Bahr, Willard & Patrick, 2004; Kolajo, 2006; Kreysa, 2007). Other studies have examined the perceptions and experiences of students who persisted through development work, despite being academically unprepared for college-level course work (Crisp & Delgado, 2014; Bahr, 2008; Boyer, Butner & Smith, 2007). However, the aforementioned research has provided an incomplete picture of student perceptions of factors which contributed to their experiences of success or failure in remedial/developmental education.

A research gap exists pertaining to the overall student experience and perceptions of academically underprepared community college students. Reid and Moore (2008) noted that research is available about academically underprepared students but the perspectives of these students are often missing. Further, the research literature offers compelling evidence that although support systems may be in place to encourage student success these efforts are inadequate if there is no attempt to understand how students themselves perceive these efforts (Boatman & Long, 2013; Nora, Barlow, & Crisp, 2005). Thus, paucity exists in the literature which justifies further research regarding the reasons that underprepared community college students are successful in developmental courses. This gap may be satisfied by providing postsecondary educators with an increased awareness of the conditions that influence successful transition to college-level course work for these students.

Assumptions

The study was guided by the following assumptions:

- 1. It was assumed that criteria utilized to select participants represented academically underprepared students.
- 2. It was assumed that 12 academically underprepared students who had successfully completed developmental course work would volunteer to participate in the study.
- 3. It was assumed that participants would respond honestly to the interview questions.
- 4. Transcripts of participant interviews were subject to participant verification in order to improve validity.

Limitations of the Study

The focus of this study was to explore the perceptions of academically underprepared students at a southeastern community college. Limitations of the study included:

- 1. Students attended a southeastern community college in Alabama.
- 2. Because qualitative research utilizes the researcher as the key instrument for data collection, bias may be introduced through the researcher's interpretation and analysis of the data.
- 3. Due to the subjective nature of qualitative research, the results of the study can only be generalized to the students who participated in this study.

Delimitations

Delimitations of the study included the following:

1. The study was restricted to a particular developmental education program at a public, southeastern community college.

 Study participant responses were limited to reflections of their own personal experiences.

Theoretical Framework

Community colleges continuously struggle with unsatisfactory rates of student success and attrition. While many authors have attempted to explain why students fail to attain postsecondary degrees, (Bean, 1980, 1982; Manski, 1989; Pascarella, 1985; Tinto, 1993), one prevailing perspectives regarding this issue is Tinto's theoretical framework of academic integration (1975, 1993).

The theory of academic integration (Tinto, 1975) asserts that students bring certain characteristics with them to college, including ethnicity, family support, socioeconomic status, and secondary school achievement. According to Tinto, these attributes significantly influence a student's initial level of commitment to the college, encourage, or discourage persistence, and impact students' time to graduation. These preenrollment characteristics have a direct influence on a student's integration into the academic and social environment at a college campus. Tinto (1975, 1993) posited that the more integrated students become within the institution, the more valued they will feel and the more likely they will be to successfully complete their academic goals.

As students become more integrally involved in the institution, they develop greater feelings of value for the campus and therefore are more likely to persist (Tinto, 1975). Tinto's theory (1975) centers on the Dutch anthropologist Van Gennep's (1960) study of the rites of passage which support the tri-phase process of separation, transition, and incorporation as individuals move from youth to adulthood.

Based on this model, Tinto (1975) concluded that a student's academic and social integration at an institution are key contributors to whether or not the student remains enrolled. More recently, Tinto (1998) asserted that institutions should provide students with structured opportunities to form peer groups and to interact with faculty members to avoid feelings of isolation and become more academically integrated with the institution. According to Tinto (1993), students are more likely to remain enrolled in an institution if they become connected to the social and academic life of the institution. Students who develop connections with other individuals, participate in clubs, or engage in academic activities, are more likely to persist than those who remain on the periphery (Tinto, 1993). Tinto described the lack of academic integration as *incongruence*, or a lack of institutional fit. Students who feel disconnected from an institution or do not believe that an institution can help them meet their goals are unlikely to persist. Likewise, students who are *isolated*, or who do not engage in social interactions within the college, are less likely to persist at the institution (Tinto, 1993). Both incongruence and isolation inhibit the integration process and thereby decrease student persistence.

According to Tinto (1993), student integration into an institution can occur along two dimensions, the academic, and the social. Academic integration occurs when students become attached to the intellectual life of the college, while social integration occurs when students create relationships and connections outside of the classroom

Tinto's framework has been applied in numerous studies of student persistence in postsecondary education (Cabrera, Nora, & Castaneda, 1993; Deil-Amen, 2005, 2011; Karp, 2011; Karp, Hughes, & O'Gara, 2010; Nora, 2001; Reason, 2009). Its application for community college students has been questioned, since Tinto's framework assumed

that community colleges provide students with fewer opportunities for social integration. Tinto also questioned whether the mechanisms that encourage social integration in particular are relevant to community college and commuter students.

Institutional response to Tinto's work has frequently led to the implementation of structured student support services intended to encourage integration. Many community colleges have taken this approach (Bailey & Alfonso, 2005). The underlying assumption to this strategy is that if colleges provide enough structured opportunities for students to engage with the institution, students will become integrated into the college and persist at higher rates. However, it is possible that students do not know about these services or do not make use of them.

Deil-Amen (2005) asserted that Tinto's integration framework is appropriate for community college students. Using data from the Beginning Postsecondary Students (BPS) Longitudinal Study, Deil-Amen (2005) reported that measures of both academic and social integration were related to persistence for community college students. Deil-Amen's (2005) also stated that these two constructs of integration may not be as distinct as is often assumed. For example, the author argued that activities such as study groups that foster student integration can be considered both academic and social.

Karp, Hughes, and O'Gara (2008) extended Deil-Amen's work by applying Tinto's model directly to community college students. Karp et al. (2008) surmised that beginning students do become integrated into the college environment. Research findings revealed that student integration developed through participation in various networks as students navigated the campus community. In so doing, students were able to learn about college which created a sense of social belonging and a feeling that others were

concerned about their academic well-being. Karp et al. also illustrated that Tinto's integration framework was applicable and appropriate to examine student success persistence in the community college setting.

Definitions

Academically Prepared: Students whose academic skills allow them to enroll in college-level course work are considered to be academically prepared.

Academically Underprepared: Students whose academic skills are perceived to be below those determined necessary to complete college-level course work are considered to be academically underprepared (Perin, 2013, 2006). Student placement test scores are frequently used to determine students' level of academic preparedness. The Compass Placement test contains math, reading, and English topics and measures knowledge within each specific domain. The Compass Placement test assesses the skills of students in three domains: reading, mathematics, and writing. Students who score below the established benchmarks for a particular domain are placed in remedial or developmental courses that address the student's skill deficiencies (ACT, 2009).

College grade point average (GPA): A college grade point average (GPA) is the numeric calculation of a student's academic achievement and persistence (Adelman, 2006). A student's grade point average is cumulative and calculated based on a numeric scale of 0 to 4.

College Readiness: College readiness describes the level of preparation a student needs in order to enroll and succeed, without remediation, in college-level credit-bearing general education courses at a postsecondary institution that offers at least an associate degree program (Conley, 2007). ACT has long defined college and career readiness as

the acquisition of the knowledge and skills a student needs to enroll and succeed in credit-bearing first-year courses at a postsecondary institution (such as a two- or fouryear college, trade school, or technical school) without the need for remediation. ACT's definition of college serves as validation of extensive research and ACT's College Readiness Standards. Measuring academic performance in the context of college preparedness focuses on the numbers and percentages of students meeting or exceeding the ACT College Readiness Benchmarks.

Community college: A community college is "any institution regionally accredited to award the associate in arts or the associate in science as its highest degree" (Cohen & Brawer, 2003, p. 5), including the comprehensive two-year college and technical institutes, many of which are now accredited under the same body as the comprehensive institutions to award associate degree. For this study, the term refers only to public two-year community colleges in one state in the southeastern part of the United States.

Developmental: Developmental refers to a comprehensive process or approach in which deficit skills are developed in underprepared students. Developmental programs are based on the assumption that all students have talents, yet require development in one area or another (Casazza & Silverman, 1996). Remediation is considered a part of this process (Brothen & Wambach, 2004; Ross, 1970). The terms *remedial* and *developmental* are used interchangeably in this study

ENG 093 Basic English: This course is a review of composition skills and grammar. Emphasis is placed on coherence and the use of a variety of sentence structures in the process of composition and in standard American written English usage. In this

course, students demonstrate these skills chiefly through the writing of paragraph blocks and short essays. Enrollment is determined by a student's placement score.

Enrollment status: Enrollment status refers to the number of credits a student enrolls in at any given institution (Laird & Cruce, 2009). Based on the amount of financial aid received, choices include full-time (12 or more credit hours), three-quarter time (nine-11 credits), part-time (between six and eight credit hours), and less than parttime enrollment (five credits or less) (Department of Education, 2003).

First-generation college students: First-generation college students are students whose parents never attended college and therefore frequently have limited information about the knowledge, skills, and dispositions required to be successful in college (Choy, 2001).

MTH 090 Basic Mathematics: Basic mathematics (MTH 090) is the lowest level developmental mathematics course offered at Jefferson State Community College (JSCC). This developmental course reviews basic arithmetic principles and terminology, operations involving real numbers, algebraic expressions and applications, linear equations, and inequalities.

MTH 098 Elementary Algebra: Elementary algebra (MTH 098) is a mathematics course in which fundamental arithmetic and algebra operations are reviewed. This course is a review of MTH 090, and topics include the numbers of ordinary arithmetic and their properties, integers and rational numbers, the solving of equations, polynomials and factoring, systems of equations, operations with algebraic fractions, and graphs of linear equations in two variables. A student earns three semester hours of credit for completing MTH 098, but these credit hours are applied as institutional credit only. This course does

not meet any certificate or degree requirements. A student who passes this course with a grade of "C" or better is eligible to take MTH 100 (Intermediate College Algebra).

Persistence: Persistence refers to sustained enrollment for the duration of a remedial course from the beginning to the end. Persistence for this study refers to students who completed their initial developmental course work and earned 24 hours of college-level course work.

Postsecondary Education: Postsecondary education refers to education beyond high school including occupational training programs as well as community college, college, and university enrollment.

RDG 085 Developmental Reading: Developmental reading (RDG 085) is designed to assist students whose placement test scores indicate serious difficulty with decoding skills, comprehension, vocabulary, and study skills. Remediation should be completed within one year by students who are required to take this course.

Retention: Retention describes an institution's ability to maintain enrollment of students successfully through degree completion (Seidman, 2005). Retention refers to the extent to which students remain enrolled at the institution as they work toward achieving their academic goals. In this study, retention is often used interchangeably with persistence and is the more preferred term to describe programs and services that are designed to help students stay in school.

Organization of the Study

This study is presented in five chapters. Chapter 1 comprises the following: (a) an introduction, (b) statement of the problem, (c) purpose of the study, (d) research questions, (e) assumptions of the study, (f) limitations and delimitations of the study, (g)

theoretical framework, (h) definitions, and (i) organization of the study. Chapter 2 focuses on a review of the related literature of the research topic. Chapter 3 presents the methodology and describes (a) the method of inquiry, (b) participants, (c) data collection, (d) data analysis, (e) verification procedures, and (d) the role of the researcher. Chapter 4 provides a description of the findings and an analysis of data based on participant interviews including emergent themes. Chapter 5 presents findings from the research, implications for policy and practice for educational leaders, and recommendations for further study.

Chapter 2

Literature Review

Inadequate academic preparation for college-level work is a key obstacle for student success at community colleges (Bettinger, Boatman, & Long, 2013). Equally important is the success rate of students who must enroll in developmental education courses when they arrive at postsecondary institutions. This issue takes on even greater concern since these students require more time to complete the appropriate math requirements to achieve an associate's degree or transfer to a four-year institution (Bailey et al., 2013). Furthermore, only 33% of students, or one of every 15 community college students who tests into developmental math when he or she begins college, is able to complete the developmental English and math sequences (Bahr, 2008; Bailey et al., 2010).

While many studies have been conducted to examine development education (Bailey et al., 2011; Boatman, 2012; Boatman & Long, 2010), there is sparse research available which explores the experiences of students who successfully complete developmental English and math courses. Therefore, the purpose of this study was to examine the perspectives of academically underprepared students who completed the necessary course work to advance into college-level English and math courses.

This chapter reviews literature relevant to this research. Specifically, the review explores: (1) an historical overview of community colleges; (2) student persistence theories; (3)student persistence at community colleges; (4) academic preparedness; (5)

developmental course placement; (6) developmental course work; and (7) transition from precollege to college-level course work.

Community Colleges

Community colleges hold a unique place in higher education as they offer an open door to opportunity to all who would come, are innovative, and agile in meeting economic and workplace needs, and provide value and service to individuals and communities. According to the U.S. Department of Education (2013), the purpose of community colleges is to provide educational access to underrepresented and/or educationally disadvantaged students. Community colleges have the unique mission of assisting students who would otherwise be unable to gain access to higher education opportunities. Students are provided with the fundamental skill set needed to successfully navigate through the postsecondary educational system (Boggs, 2010).

Although community colleges were initially created as open-admissions junior colleges, offering the first two years of a baccalaureate education, community colleges today have developed into comprehensive and viable institutions of higher education (Boggs, 2010). Furthermore, these institutions serve the postsecondary educational needs of communities in many ways and play an important role in preparing students to transfer to upper-division universities or to directly enter the workforce. Consequently, there are 1,132 regionally accredited community colleges in the United States serving as gateway institutions for many individuals who would not otherwise be able to obtain an education beyond high school (American Association of Community Colleges, 2014).

Even though the roots of this contribution to higher education extend to several specialized two-year institutions that began in the late 19th century, most community

college historians point to the founding of Joliet Junior College, near Chicago, Illinois, in 1901 as the true beginning of the American community college movement (Cohen & Brawer, 2009). Development of these institutions greatly expanded access to higher education to students who would otherwise never have had the opportunity to attend college.

According to Cohen and Brawer (2008), community colleges were originally called junior colleges and were created to assist four-year institutions by providing access to a broader society by offering the 13th and 14th years of education. As time progressed, and the demand for a more educated and skilled civilization began to take shape, policy makers determined community colleges were the ideal institutions to meet societies' need for a more skilled and educated workforce.

More importantly, America was in the midst of World War II, and with ablebodied men being called to duty, a large void was created in society's workforce. America was entering the height of the Industrial Revolution and in need of individuals who possessed the necessary skill set to keep the workforce moving forward (Cohen & Brawer, 2008). Therefore, the community college system shifted its focus and started offering technical and vocational training programs to ensure the need for skilled workers could be met.

Over the next several decades, the population of students entering the community college system increased dramatically, and community colleges had to evolve to meet the demands of a growing and changing student population. World War II ended, and war veterans coming home needed jobs and training skills in order to successfully immerse themselves back into society. Thus, the federal government had a more vested interest in

ensuring that war veterans had access to higher education opportunities when they returned home. To assure access would be provided, the federal government established the Serviceman's Readjustment Act (GI Bill), which guaranteed federal funds would be earmarked for higher education expenses and monetary assistance towards the purchase of a home for all members of the armed forces who were honorably discharged (Winter, 2013). As years progressed, the public educational system began to redirect its purpose and realign its goals and mission to meet the needs of the individuals it was intended to serve.

In 1940, President Truman directed the Higher Education Commission (HEC) to work toward eliminating obstacles or barriers that inhibited individuals from pursuing a higher education (Cooper, 2005). Twenty years later, the community college system began to redefine its role in higher education once again. During the 1960s and early 1970s, major changes occurred in the public higher educational system. The Vietnam War was ending and war veterans returning home were in need of educational skills. Once again, the Community College System saw a dramatic spike in enrollment. Additionally, the Civil Rights movement began to take shape, and public education institutions were instructed to provide equal access to all American citizens; thus, polices were created to ensure the integration of schools (Lucas,2006).

The Civil Rights Act was ratified in 1964 which mandated that all public educational institutions provide equal access to education for minority students and federal aid to students through campus programs, services, and grants. Prior to this point, many minority students received a substandard education and were unable to access public educational institutions that provided more resources and better educational

opportunities which left many students underprepared and educationally disadvantaged (Ladson-Billings, 2009). In 1965, the Higher Education Act (HEA) issued federal funds to provide need-based grants, work-study programs, and loans to economically disadvantaged individuals who wanted to pursue higher educational opportunities to ensure greater access to public higher educational institutions (Cooper, 2005).

Since their inception, community colleges have evolved into open access institutions to ensure admission to and success in quality higher education without regard to race, ethnicity, or social class for all students (Beach, 2012; Cohen & Brawer, 2009). As a result, community colleges of the 21st century are open-door institutions whose entrance requirements are generally a high school diploma or GED (Graduate Equivalency Diploma). Hence, the overarching mission of this type of institution has become synonymous with its ability to provide an education in which tuition rates are more reasonably priced than four-year public and private institutions to all students regardless of their academic preparedness for college-level course work (Beach, 2012).

Community colleges have become multi-functional institutions existing to prepare students for transfer to four-year institutions, offer workforce training and continuing education, and provide associate degrees (Beach, 2012). With the responsibility of serving more than 11.6 million students, or approximately 46% of all undergraduate college students in the United States, these institutions must be able to move students through the education process (NCES, 2012). Many of these students are first-generation, minority, low-income, and academically unprepared for college (Planty, 2008). Of those students who enter community colleges, at least one-third plan to transfer to a four-year institution to earn a bachelor's degree (Rutschow & Schneider, 2011).

It is evident that community colleges play a critical role in helping to educate a large percentage of the United States population. However, the ability to graduate these students is one of the greatest challenges faced by community colleges (Rutschow & Schneider, 2011). This challenge is impacted by the fact that over half of these students are academically underprepared for college-level work and only a small percentage of these students complete the required developmental course sequences necessary to enroll in college-level courses (Atwell, Lavin, Domina, & Levey, 2006; Bailey et al., 2010; Jenkins, Jaggars, & Roska, 2009).

The occurrence of lower graduation rates and decreased academic preparedness of community college students has brought developmental education to center stage in the higher education arena. Implications of large numbers of students needing remediation with average costs of \$1 billion annually severely impact the economy at every level of government in the United States (Boggs, 2010; Martinez & Bain, 2013).

Community colleges have been identified as a vital part of the solution in addressing the economic challenges in the United States. Recognizing that too often community colleges are underfunded and underappreciated, President Obama specifically emphasized increased funding for these institutions in his remarks on the American Graduation Initiative (Obama, 2009). President Obama stressed the need for community colleges to improve instruction, increase resources, build ties with businesses, and adopt educational reforms. Additional priorities as articulated by the president included improving remedial education programs, accelerating student progress, and integrating developmental classes into academic and vocational classes (Obama, 2009). With unprecedented support from the federal government, community colleges would become

instrumental in reaching President Obama's goal of graduating five million more Americans from community colleges by 2020 (Obama, 2009).

The objective of increased degree completion is an important one for our country, and students at community colleges are an essential factor in achieving this goal (Boggs, 2010). In his 2014 Address to the Nation, President Obama sought to expand recourses for community colleges through an \$8 billion Community College to Career fund with the goal of training two million workers for good paying jobs in high demand industries (Obama, 2014).

Community colleges are at the center of much scrutiny as they seek to collaborate with policy makers and national foundations to meet this ambitious challenge from President Obama (Mullins, 2010). Hence, community colleges will be required to become much more effective in closing achievement gaps that currently exist for minority and low-income students and removing barriers that hinder the success of academically underprepared students (Boggs, 2010).

Student Persistence Theory

For the past 40 years, research on student persistence in higher education has offered theories on various factors that contribute to the successful transition of students as they matriculate from entry-level freshman to seniors who graduate with a four-year degree. The fundamental theories that influence student persistence are presented in this literature review. These theories have determined that both academic and nonacademic factors influence student persistence, and numerous models of student persistence are founded on these theories. These models look explicitly at specific factors that affect

persistence of students in their first year of college. However, there are currently no models that specifically explore the issues that are unique to community college students.

Two theoretical models of persistence provide the fundamental foundation for studying persistence and attrition in higher education. Tinto's Student Integration Model (1975, 1987, 1993) and Bean's Student Attrition Model (1980, 1985) examine the interaction between the student and the higher education institution and how this relationship influences persistence.

Tinto's model, which focuses on academic and social integration, guides the research on retention and student persistence research within the community college. It states, "The degree to which students are successful in their pursuits determines the degree to which they are committed to their career and educational goals as well as to the institution" (Tinto, 1975). However, this model is validated mostly through studies on four-year, residential institutions, not community colleges which are predominately commuter institutions.

Tinto's model considers factors that students bring into their first year of college including family background, individual attributes, and pre-college exposure. These factors feed into the commitments the student makes to the institution and to his or her goals. These commitments, in turn, influence the factors that are keys to Tinto's model: academic integration, the use of indicators (e.g., grade performance), and social integration based on interactions with peers and faculty (1975). The level of integration influences commitment, which determines dropout decisions.

In 1987, Tinto explored a longitudinal model by following dropout patterns through consecutive terms. This model included more specific background factors

including financial factors (family social status), academic factors (high school performance), and nonacademic factors (e.g., gender, race). Tinto (1993) later acknowledged that different groups of students such as at-risk, adult, honor, and transfer students had significantly varied circumstances that merited group-specific retention policies. Tinto rationalized that different types of postsecondary institutions such as public, private, urban, commuter, residential, two-year, and four-year, required specific and unique retention policies.

Bean (1980) developed a theory based on the foundation set by Tinto in order to question the role of the institution in the integration and persistence of students. Bean's model is founded on theories of organizational turnover, which considers employee attrition in business organizations (1980, 1982, 1985). Bean's (1980) model focused on intent. Bean also studied both endogenous and exogenous variables that influenced a student's intent to persist in higher education. Based on this model, Bean and Metzner (1985) developed a model of student persistence which suggested that academic and environmental factors play critical roles in a student's intent to stay in college.

Bean and Metzner (1985) identified four specific variables related to enrollments at community colleges. These variables included (a) academic performance as measured by grade point average; (b) intent to leave, which is influenced by psychological outcomes and academic factors; (c) background and defining variables, which are essentially a student's academic performance in high school and his or her future educational goals; and (d) environmental variables, which may have a direct effect on a student's decision to persist towards a degree.

As previously noted, Tinto's and Bean's theories were developed using a traditional definition of a college student, a period which is characterized by full-time enrollment of residential college students who are 18-22 years old. Community college students of the 21st century, however, are more likely to take fewer credit hours than a full-time student and primarily commute to campus (Cohen & Brawer, 2008).

A number of theoretical concepts have been studied and developed among fouryear college students, but their relevance to community college students has been questioned (Attwell, Heil, & Reisel, 2010; Braxton, Sullivan, & Johnson, 1997; Braxton & Lien, 2000; Rendon, Romero, & Nora, 2000). Unlike community colleges, four-year colleges and universities have selective admissions criteria and many are residential institutions. In addition, academic and career goals for four-year and two-year college students may differ. For example, students at community colleges may not be interested in earning a degree. Instead, students may enroll with the intent to learn a specific skill, gain a promotion at their current job, or for personal enrichment (Bailey et al., 2004). On the other hand, students may enroll to test the waters of postsecondary education in a less expensive environment (Wild & Ebbers, 2002), or to finish lower level educational requirements and transfer to a four-year institution (Hoachlander et al., 2003).

In addition to having different goals, community college students reflect diverse demographic background, which often complicates the problem of student retention. Many community college students are first-generation enrollees who have different characteristics and needs as compared to the traditional student (Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996; Westbrook & Scott, 2012).

Traditional students are defined as students who are between the ages of 18 and 24 and enter college immediately after high school graduation. On the other hand, firstgeneration college students are individuals whose parents did not attend any type of higher education. They are likely to be minority students, older, and may have a gap between high school graduation and college entrance. Many of these students are also underprepared in at least one of the basic skills of reading, writing, and math (Boatman & Long, 2010; McCabe, 2000).

One of the most valuable aspects of community colleges is the support they provide to these academically underprepared students to persist in higher education. Furthermore, community college faculty and staff members strive to understand what students bring with them to college. A student's knowledge, values, behaviors, and selfconcepts are specific qualities to consider in reflections of academic persistence. In their study of first-generation college students at Appalachian State University, Hand and Payne (2008) identified additional factors that influenced student success including family culture and emotional support.

Comparatively, there are no current models that explore concerns specific to community college students. Voorhees (1987) noted the lack of theoretical models specific to community colleges that present data on how student persistence behavior is affected by background characteristics such as academic preparedness and family background. However, in recent years, researchers have attempted to identify the major factors that influence student persistence.

Student Persistence at Community Colleges

The literature offers many potential factors that hinder persistence for academically underprepared college student. Several researchers have asserted that in addition to placement test errors and developmental course design, cultural differences play a major role in motivating the successful academic performance of academically underprepared students (Edgecombe, 2011; Grubb, 2013; Hodara, Jaggars, & Karp, 2012).

Bailey et al. (2010) noted that almost two-thirds of first-time community college students were underprepared for the rigors of college-level course work. Although many of the variables are thought to influence student persistence at the community collegelevel, there are no traditional models of student persistence that consider this unique population of students. Therefore, it is important to investigate student persistence at community college settings from a different perspective.

Fike and Fike (2008) examined predictors of persistence and success of students in remedial education. The authors discovered that one of the most significant predictors of persistence for community college students was successfully passing developmental reading course work. Further, Fike and Fike determined that passing developmental math courses was an indicator of semester-to-semester persistence.

Seeking to better understand why students left college, the researchers analyzed the predictors of success that led to retention for students in a community college. The sample for this quantitative study was 9,200 first-time-in-college students enrolled at a southwestern urban community college. Data were collected retrospectively over a fouryear period of time from the community college's database. Fike and Fike found that one

of the most significant predictors for student retention was successfully passing developmental reading courses. Additionally, passing developmental math courses was a significant indicator of semester-to-semester retention.

More recently, student high school grade point average (GPA) and standardized test scores such as the American College Testing Program (ACT) and the Scholastic Aptitude Test (SAT), were cited as more predicative factors of student persistence in higher education (Sparkman, Maudling, & Roberts, 2010). The researchers noted that traditional factors of student success accounted for only a modest impact on student academic performance. Students were given the Emotional Quotient Inventory to measure self-report of emotionally and socially intelligent behavior. Multiple linear regressions were used to evaluate possible relationships between cumulative grade point average and the emotional intelligence scores of students. Sparkman et al. (2010) determined a lack of experience could "lead to insufficient levels of emotional support or a lack of understanding of the commitment necessary for a student to persist in college" (p. 8). This study suggested that a student's social responsibility and impulse control were the two highest predictors of a student's ability to persist to graduation.

Moreover, Long, Iatarola, and Conger (2009) discovered that students who enrolled in advanced courses and had higher grades in high school were more likely to succeed in college classes. The authors observed that in Florida community colleges, older students were more successful than younger students in remedial course work. Previously, however, Calcagno and Long (2008) demonstrated that in addition to high school GPA, English proficiency, socioeconomic status, race/ethnicity, gender, and age profoundly impacted academic performance and persistence in remedial course work.

Due to these equivocal findings, it is crucial for educational researchers to continue to study the predictors of college success, specifically the success of students who leave high school unprepared to begin a college-level curriculum.

Additional researchers developed the Student Readiness Survey which can facilitate interventions for student success in remedial education (Le, Casillas, Robbins, & Langley 2005). This study utilized a rational-empirical approach to determine if the measure of psychological and academic factors predicted academic performance and retention. Le et al. conducted this study in an attempt to develop an inventory of psychological and skill factors that established (a) constructs that predicted college success in meta-analysis, (b) other constructs that may predict college success, and (c) the foundation for the construct validation at community colleges and universities and high school students at 50 institutions. Of these institutions, 22 were high schools located in the Midwest, South, Southeast, and Southwest; 22 were community colleges; and six were four-year universities from each of these regions.

Data were collected through a voluntary questionnaire which was administered to students while they were in class. Data were analyzed using a five step process: exploratory factor analysis, confirmatory factor analysis, analyses to determine scale properties, and second-order analyses. Researchers met their objective of the study by establishing the Student Readiness Survey that can be used to predict academic performance and retention. However, the authors encouraged further study of the inventory to build a more credible construct validity argument.

Similarly, another important indicator of success for underprepared students is their academic skills and demographic characteristics as related to their enrollment and

achievement in college-credit course work. Goldstein and Perin (2008) examined the relationship between selected academic and demographic factors and performance in college-level courses that required skilled reading and writing proficiencies. Researchers voiced two questions. First, they asked what the relation of literacy was between demographic and academic variables to academic achievement in a content course (Introduction to Psychology).

Second, the researchers questioned whether or not students who placed in and completed developmental English course sequences performed at different academic levels than non-remedial students. The sample (n=685) consisted of students who enrolled in and received a grade in the Introduction to Psychology course and who also placed into one of five levels of English course work. This group did not include students in English as a Second Language (ESL), students who did not take the English placement test, students concurrently enrolled in high school, students who withdrew from the course, or students for whom no ethnicity or educational status was reported. Data for this study were retrieved from the college data system.

Binary logistic regression analyses were performed on the data to determine predictors of performance in the psychology course. Significant findings revealed that students who completed college-level English were more likely to pass the psychology class than those with only developmental English skills. One highlight of the study included the importance of literacy skills to achievement in college courses that require extensive literacy demands. Additional results suggested that English courses completed prior to matriculating in the psychology course had an effect on achievement in the course. Underprepared students who completed remedial English and college-ready

students had similar academic success in the psychology course; therefore, it was highly likely that students who improved their literacy skills by completing the appropriate English course would be more academically prepared for college-level courses.

Wolfle (2012) examined the interactions of age, ethnicity, and developmental education to predict persistence of community college students. Wolfle (2012) utilized ex-post facto data to examine fall-to-fall persistence of students at a medium-sized community college in Virginia. The researcher followed 756 students over a five-year period from the fall of 2006 to the spring semester of 2011. In addition to fall-to-fall persistence of students, the researcher examined the impact of developmental status, age, ethnicity, and completion of students' first college-level math course.

Wolfe found that neither the interaction of developmental status and age nor the interaction of developmental status and ethnicity were significant in predicting either success in the first college-level mathematics course or persistence to a second year. Developmental students who subsequently enrolled in a college-level mathematics course had comparable levels of success as did students who did not require developmental mathematics courses. Older students and White students were more likely to succeed in their first college-level mathematics course than were traditional-age and non-White students, respectively. There were no significant differences based upon age, ethnicity, or developmental status in the persistence to a second year of enrollment in the college.

Adding to the extant literature on student persistence, VanOra (2012) explored what academic and nonacademic challenges and experiences motivated community college students to persist in developmental courses. Study findings were based on semistructured interviews with 18 students enrolled in developmental education courses at a

community college. The researcher concluded that developmental students in community college faced significant personal and academic challenges which hindered a seamless and successful journey to completion of course work and graduation.

Academic Preparedness

Many students enroll in American colleges and universities underprepared for college-level course work. Based on entrance exams and high school grades, colleges assign specific "remedial" courses in which students must enroll before progressing further in the curriculum (Bettinger & Long, 2009; Chen, Wu, & Tasoff, 2010; Strong American Schools, 2008). These courses generally include reading, writing, and mathematics, which are taken in addition to courses required for the student's major program of study (Bailey et al., 2010; Bailey & Cho, 2010; Long & Boatman, 2010). In many instances, community colleges struggle to meet the needs of this growing population of underprepared students (Crisp & Delgado, 2014; VanOra, 2012). Research on how to help underprepared students persist and succeed continues to be essential for today's community colleges. Creating a strong research-driven body of evidence that identifies effective strategies would have significant benefit to students, colleges, and the nation as a whole.

To be adequately prepared for postsecondary education, students must be successful in college-level courses at both two- and four-year institutions. According to Conley (2010), the ability to succeed in course work at the college-level allows students to take subsequent courses in a degree program. To achieve this level of success, students must have the appropriate cognitive skills. However, these skills alone do not predict academic performance (Grubb, 2013; Scott-Clayton, 2013).

The challenge to prepare 21^{st} century high school students for matriculation in American colleges and universities is ever present. Reid and Moore (2008) addressed the challenges of college readiness in a qualitative study that explored the experiences, perceptions, and attitudes of students toward their high school preparation for college. A purposeful sample (n=13) was composed of minority college students enrolled at a fouryear university who would be the first in their families to graduate from college. The sample was obtained from one urban public high school located in the Midwest.

Research questions addressed: (1) perceptions and attitudes that first-generation college students had regarding their preparation for college, and (2) strengths and weaknesses of their high school preparation for college. Data were collected utilizing biographical questionnaires and semi-structured interviews. Reid and Moore utilized a grounded theory approach to analyze the data for contrast and comparisons. Two themes emerged: (1) preparation that helped with college preparation, and (2) skills that were deficient for college success.

In an earlier study, Hoyt and Sorensen (2001) focused on the widespread effects of students successfully graduating from high school but entering colleges lacking the necessary academic skills to complete college-level courses. The purpose of the study was to examine the connection between a student's high school preparation and postsecondary remedial education. Additionally, the researchers sought to determine how high school preparation affected students' remedial placement rates at an open admissions college that offered a restricted number of bachelor's degrees.

The sample of students in this study (n=18,174) attended the college, and the average age of participants was 22. Nearly half of the entering freshmen needed remedial

education. Data were collected from high school transcripts of students from five different high schools in two separate districts which identified students' highest level of math and English courses completed. Data were analyzed using descriptive statistics and logistic regression analysis.

Investigators found that students who placed in remedial courses at the beginning of their matriculation at the college still had high remedial placement rates even though they successfully completed college preparatory courses in high school. More than 50% of students who successfully completed intermediate algebra and geometry placed into remedial courses at college, and more than 30% of those who successfully completed 12th grade English placed into remedial English. Implications of these results strongly suggested that a greater focus should be placed on high school standards and the processes of teaching and learning. A more somber conclusion was that the rigor of high school course work should be rigorously evaluated in order for graduating high school students to successfully matriculate into college-level course work.

Academic performance of entering freshman continues to be a challenge for community colleges. More than 50% of entering students need developmental education to strengthen their basic skills (Bailey et al., 2010; Gabriel, 2008; McCabe, 2006). Remedial course work designed to promote academic success and persistence is crucial (Edgecombe, 2011; Gahagan, 2000; Tinto & Pusser, 2006). Reid and Moore (2008) addressed the challenges of college readiness of first-time college students and noted that participants perceived deficiencies in math and science skills, writing skills, study skills, and time management skills as they entered college.

According to Boden (2011), graduating high school students who were deficient in English and math skills still believed that they were academically prepared for college. Students based their assumptions of academic preparedness on their ability to meet the criteria for entering college coupled with their commitment to earn a degree. As these participants entered college, they discovered that college work required higher order thinking skills that they had not previously anticipated.

Likewise, Davis, Burnette, Allison, and Stone (2011) investigated whether or not students who believed they were incapable of succeeding in college and/or lacked the necessary skill set needed to be successful could be taught to overcome their previous fears, learn to cope with academic challenges, and become successful. The authors used implicit theory literature to examine the self-efficacy of educationally prepared students and educationally disadvantaged students within the academic context. To investigate their hypothesis, the researchers assessed 165 college students' understanding of mathematical concepts and how this understanding influenced students' ability to succeed during math competition. Through analysis of the data, they concluded that when students felt less helplessness, they had greater self-efficacy in their math ability and were more successful.

Developmental Course Placement

For the majority of students entering community college, academic skills are measured by placement tests. These tests, in turn, determine whether students fall above or below specific cutoff scores (Hughes & Scott-Clayton, 2011). Multiple researchers have suggested that early assessment of students and alternatives which combine multiple measures of a student's academic preparedness may be more effective in placing students

into college courses rather than one single measure of proficiency (Belfield & Crosta, 2012; Hodara et al., 2012; Scott-Clayton, 2012). Historically, there has been no consistent implementation of placement test policies among community colleges.

This lack of consistency led Hughes and Nelson (1991) to study the effectiveness of community college placement practices and policies for entrance into college-level course work. Participants for this study consisted of a random sample of 578 entry level students who took and met the required minimum assessment and enrolled in Freshman English composition courses at a community college that offered associate of arts and associate of science degrees. These individuals were assessed in reading, language and mathematics. Assessment scores were obtained from ASSET Student Success System data tapes and final grades were provided by the college's admissions office. Hughes and Nelson used discriminate analysis to examine the relationship between assessment scores and grades and found that placement scores alone were not inaccurate and not a strong predictor of entrance and success in English composition.

More than two decades later, accurate placement testing policies that are crucial to the appropriate placement of students continues to be a major concern for postsecondary educators. In 2008 Donovan and Wheland investigated the relationship between ACT mathematics scores and COMPASS Placement Test scores. They also examined student success in Intermediate Algebra based on gender and semester taken, and the relationship between initial course placement and success in Intermediate Algebra. The population sample (n=1,694) included students in developmental math and Intermediate Algebra at a public, open-admissions urban university.

Donovan and Wheland noted that students were placed in math courses based on their ACT math score. An ANOVA was executed to analyze test scores and course grades. Data analysis also included logic regression to examine student scores and achievement in Intermediate Algebra. A key finding of this research confirmed a fundamental need for more precise placement of students in math courses at the lower levels. Otherwise, students were negatively impacted in their success in these courses.

Foley-Peres and Poirier (2008) conducted the first phase of a longitudinal study that assessed the placement of incoming students for math courses. The authors compared the use of math placement scores and SAT scores for 188 freshman students at a private college in New England. SAT scores, college math assessment scores, midterm grades, and faculty assessment of students matriculating in math courses were utilized as a basis for comparison. Data were retrieved from the college's student data system. Student grades and faculty observations were analyzed to understand which assessments were more accurate predictors of student success in math. Data analysis revealed that SAT scores were not good indicators for placing students in college-level math and placement test scores actually served as a better indicator in assessing a student's math skills. Foley-Peres and Poirier (2008) concluded that math placement assessment may be an effective evaluation for student placement in math courses.

Studies by Illisch, Hagan, and McCallister (2004) and Byrd and MacDonald (2005) examined the effectiveness of standardized assessment measures utilized by higher educational institutions. According to Byrd and MacDonald (2005), community colleges started requiring assessment testing in the 1980s to determine student

competence in English, math, and remedial course requirements when students tested below college-level.

Byrd and MacDonald investigated the standard methods used to determine English and math placement for students as well as other measures such as personality and behavior attributes. The researchers concluded that time-management, determination, and the ability for students to focus were vital parts of college readiness. Moreover, they asserted that standardized assessment measures were not effective means of measuring the success and/or abilities of underprepared students.

Illich et al. (2004) emphasized the open door policy of community colleges in providing educational opportunities to students who would not otherwise be able to attend a higher education institution. The researchers noted that colleges currently assess students on their fundamental abilities by utilizing standardized testing techniques to determine which students need developmental learning courses. Students are then placed into appropriate English, math, and reading courses based on their assessment results.

Frequently, students have to complete one or two remedial courses before they are able to meet the college-level requirements. Since placement testing is limited to English, math, and reading courses, students can enroll in both remedial basic skills courses and content area college-level courses. Illich et al. examined the hypothesis that disadvantaged students' academic skill deficiencies did not affect their ability to successfully complete college-level courses in other academic areas. Data analysis indicated that students with academic deficiencies in English, math, or reading had lower completion rates in college-level courses than students who assessed at college-level.

However, students who completed their remedial courses first had higher success rates when they enrolled in college-level courses.

Boylan (2009) examined the ways in which colleges and universities assessed, advised, and placed underprepared students through an alternative placement method called the TIDES model (Targeted Interventions for Developmental Education Students). Currently, most colleges and universities assess students for developmental course placement through ACCUPLACER and COMPASS, computer-based placement programs that assign students based on the number of questions students answer correctly. In contrast, the TIDES model combines cognitive, affective, and personal information for assessment and subsequent placement. According to Boylan, having access to this type of information allowed academic advisors to provide better intervention strategies for students and enabled some students to bypass developmental placement and enroll directly into college-level courses.

Boylan discussed how the cost of providing developmental courses is increasing while the number of students in need of remedial courses is continuing to rise as well. Researchers have noted that accurate assessment is of critical importance since students enrolled in developmental courses have longer time-to-completion rates and accrue more out-of-pocket expenses than students who do not place into remedial courses.

Bailey (2009) referred to the placement testing process as a form of higher education high-stakes testing. Students are assessed once, and this score determines their future college enrollment trajectory. Moreover, there are differential cut-off scores for placement into developmental classes among colleges. Bailey noted that students with similar placement test scores may have variable gaps in academic knowledge due to

factors such as length of time out of school or not having completed any prior classes with the subject material. In addition, students who test into developmental education courses are not required by some colleges to actually enroll in these courses. In fact, Bailey stated that less than half of students who are shown to be in need of developmental classes actually complete the entire recommended course sequence.

Finally, Melguizo, Kosiewicz, Prather, and Bos (2014) examined current assessment and placement policies used to assign students to developmental math courses in the Los Angeles Community College District. The authors used a case study approach to understand how developmental assessment and placement policies were implemented at large, urban community colleges. Researchers analyzed transcript data, placement criteria, and student background questionnaire data. Additionally, researchers conducted 25 in-depth interviews with administrators and faculty members to understand the scheme and application of the district's assessment and placement policies.

Study findings suggested that community college faculty and administrators lacked the technical capacity and resources necessary to design, evaluate, and implement assessment and placement policies. Furthermore, findings indicated that these educators had limited understanding about which placement tests and cut-off scores were most effective for placing students in suitable developmental course work.

Multiple Developmental Skills

For students who lacked basic reading and study skills, Curkras (2006) examined processes and strategies that would help them become self-regulated learners. Participants were academically at-risk students (n=19) at a northeastern urban community college. These students were below college-level in more than one basic skill and were

placed in upper level remedial courses. Curkras (2006) collected student test scores and work papers as well as students' sets of strategies based on encoding, organizing, measuring, and using a study plan. Curkras (2006) utilized correlation analysis to determine the relation between study processes and test performance. The researcher concluded that when students reviewed their test performance in combination with study strategies they could more effectively choose productive strategies to support their studies. Finally, Curkras (2006) noted that personal preference influenced students' choices of study strategies and strategies were affected by students' learning styles.

Bahr (2007) examined multiple skill deficiencies and their negative impact on successful remediation. Specifically, Bahr tested the hypothesis that negative effects of math deficiencies increased in magnitude as English competencies decreased. The sample population (n = 69,921) consisted of remedial math students enrolled at 107 colleges over a six-year period. Data were collected via transcripts, demographics, financial aid awards, and matriculation records maintained by Chancellors' offices of participating institutions.

Bahr used a nested logistic regression model and bivariate analyses which revealed mixed results. However, Bahr was able to draw several conclusions, the most alarming of which was the low probability of successful remediation in math for students who had the weakest math skills. Further, Bahr noted that students with adequate English skills may never overcome their major math deficiencies. Additionally, the author concluded that the possibility of students with poor English skills had a very low probability of successfully completing college-level math.

In a more recent study, Bahr (2011) "analyzed course-taking behaviors, outcomes, and progress of students in remedial math and writing sequences" (p. 685) to identify the

stage in which remedial math and writing sequences saw significant rates of student attrition. Bahr focused on students who remained in the community college system for at least five semesters as this is the group of "students that educators understand the least about their disparities in college-level skills attainment" (p. 693).

Bahr used data from the California Community College system to examine nonspecific attrition, skill-specific attrition, and course-specific attrition of community college students enrolled in remedial course work. Bahr's (2011) findings indicated that each one of these characteristics provided a more nuanced understanding of the differences between college skill attainment and remedial skill attainment. The results further illustrated that despite a student's point of entry in remedial math and writing courses, departure from these sequences occurred at alarming rates with each step in the sequence. Bahr inferred that even for students who realized positive outcomes there was still an escalating rate of attrition among these students at the next level of course work.

Developmental Writing

Crews and Aragon (2007) studied the success rates of college students who lacked the basic writing skills needed for college-level course work. The purpose of this study was to examine the relationships between students who enrolled in a developmental writing course and their rate of persistence through the course work to achieve their academic goals. Crews and Aragon posed three research questions to guide the study. Questions compared the relationship of student participation versus nonparticipation in remedial courses to the potential outcomes of passing, persisting for more semesters of the study, completing degree requirements, and transferring to a four-year institution.

The researchers utilized an ex-post facto search design which involved the retrieval of factual information from student records in a database located at a midwest public rural community college over a three-year period. A probability sample (n=1,269) was used to select individuals specific to the population being studied. These students comprised two subgroups, participants (n=384) and non-participants (n=285). Eight cohorts and two subgroups, one for participants and one for non-participants were tracked for three years from their initial enrollment in the. A one-way ANOVA was conducted to test for differences in writing scores.

Crews and Aragon utilized descriptive analyses, central tendency, and dispersion to test the data. Z test analyses were used to examine credit-hour completion and persistence, and Chi-square analysis confirmed degree completion and transfer rates. Researchers also employed secondary analysis of participants who were added to the student at a later date which used the same aforementioned statistical procedures. Crews and Aragon identified a significant difference between the cumulative credit hour completion comparison for participants (85%) and non-participants (65%); however, there was no significant difference in the percentage of credit hour completion for later participants and nonparticipants. Study findings revealed that at the end of the three-year period of matriculation, there was no significant difference between degree completion and initial participation.

Similarly, Southard and Clay (2004) evaluated the effectiveness of a Florida community college in preparing developmental writing students to succeed in collegelevel writing courses. Their research addressed two questions: (1) Did College Prep English II, a developmental course, prepare students for the academic demands of

Composition I, the first college-level writing course, and (2) Were student scores on the Florida College Placement Test (FCPT) relevant to their success in writing-intensive courses?

For this investigation, the researchers examined academic transcripts of 929 students. Participants were divided into four groups. Students in groups 1, 2, and 3 consisted of students who were placed in College Prep English II or had been placed in and passed college Prep English I. Group 1 contained 58 students who passed college Prep English II and enrolled in composition I; Group 2 consisted of 48 students who passed college Prep English II and failed to enroll in composition I; and Group 3 consisted of 29 students who were placed in college Prep II but failed the course. Group 4 had 749 students who, based on their FCPT scores, were placed in Composition I.

Investigators utilized a Pearson correlation to determine the effectiveness of College Prep II in preparing students for Composition I. Three Pearson correlations were performed to determine the correlation of CPT scores with student success in writingintensive courses. The College Prep English II grades and FCPT scores were analyzed for Groups 1, 2, and 3. Composition I grades and FCPT scores for Groups 1 and 4 were also analyzed. A p value of < .05 for all three groups determined the significance of the results.

Researchers found that developmental students passed Composition I at a higher rate, withdrew at a lower rate, and needed fewer attempts to pass than their nontraditional counterparts. They further discovered that despite the fact that 74% of developmental students were successful in Composition I, the correlation between successes in the two courses was weak, indicating a lack of significance between

mandated placement test scores and grades in courses that were writing-intensive. The authors concluded that FCPT identified students who needed remediation but failed to identify all students who could benefit from work in a developmental writing course.

Developmental Math

Responding to below average mathematics achievement of graduating high school seniors, Hagedom, Siadat, Fogel, Nora, and Pascarella (1999) compared first-year college students enrolled in remedial mathematics courses with first-year college students enrolled in non-remedial mathematics courses. A three-fold question examined the relative importance of (1) demographics, (2) high school academic variables, and (3) variables related to college matriculation. These questions were investigated for both remedial and non-remedial mathematics students to predict mathematics achievements in the first year of college.

The sample for this study originated from the National Center on Postsecondary Learning and Assessment (NCTLA) and consisted of first-year college students from 23 colleges and universities in 16 states. Institutional characteristics such as type, size, and ethnic distribution of the undergraduate student population were provided by the National Center on Education Statistics (IPEDS). In terms of data collection, students completed the American College Testing Program's Collegiate Assessment of Academic Proficiency (CAPP) mathematics test and initial and follow-up College Student Experiences Questionnaire (CSEQ). Statistical analysis procedures included testing of all variables of interest for normality; factor analysis to isolate and identify appropriates scales; subsequent tests for construct reliability; and tests for interactions by gender, ethnicity, and remedial and non-remedial math placement. The sample was divided into two

groups, and a one-way ANOVA was performed to identify differences between the two groups. Additionally, a software package (Gemini) was used to analyze and compare the coefficients of determination and direct and indirect effects for both groups.

Researchers found that non-remedial math students were typically non-minority students with higher SES status whose parents were highly educated. For remedial students, significant constructs included levels of high school math as well as racial composition of their schools and neighborhoods. A picture of disparity emerged in this study in that students from higher economic backgrounds were better prepared in mathematics than students from lower income levels. Findings further showed that regardless of math placement, female students spent more time studying than their male counterparts, and students who spent more time studying in high school were more likely to have positive study habits in college.

Asserting that remediation is the core function of higher education, Waycaster (2001) investigated factors that could positively impact students' degree of success in developmental mathematics programs in two-year colleges. This study included 10 instructors and 15 developmental math classes in five, two-year colleges. Descriptive data included credit hours, enrollment, attendance, class size, classroom participation, and student success and retention rates for developmental students. Data were collected through classroom observations and discussions with mathematics faculty. The researcher visited each classroom at the beginning, middle, and end of the semester. At each visit, data were gathered from observation of teaching methods and techniques, student attendance, and student participation.

Waycaster found that 10 of the 15 math classes saw 50% or better success rates. Additionally, students in the prerequisite developmental courses did as well as students who were placed into non-developmental courses. According to Waycaster, the threeyear cohort study revealed that retention rates for developmental students were considerably higher than retention rates for non-developmental students. These findings validated the efforts of faculty and staff members at community colleges to transition underprepared students to readiness for college-level work. Waycaster further posited that students enrolled in remedial math must not only overcome the stigma of remediation but must also deal with past anxieties and attitudes that often accompany remediation.

Ironsmith, Marva, Harju, and Eppler (2003) compared the psychological effects of learning and performance goal orientations, anxiety, and confidence associated with math via self-paced and lecture learning formats in remedial mathematics. The purpose of the study was to examine the influence of classroom format, four types of achievement motivation, and student attitudes towards math in relation to the final grade.

The sample (n=272) consisted of undergraduate students enrolled in 17 different sections of remedial mathematics at a large southeastern university. Data were collected from students utilizing the Fennema-Sherman Mathematics Attitude Scales (Fennema & Sherman, 1976), and semester test scores and grades were obtained along with SAT scores at the end of the semester. Descriptive statistics and ANOVA were used to analyze the data in this study.

Ironsmith et al. (2003) concluded that students who endorsed learning goals received higher grades than other goal orientation groups. Investigators found student

anxiety regarding mathematics was more prevalent than anxiety in other courses. Further, results suggested that students who had a learning goal orientation not only reported higher grades but were also anxious than goal-oriented students. Researchers demonstrated that knowledge can be used to help students and teachers understand one another and to acknowledge that psychological factors associated with taking math courses can be changed by building attitudes that teach students to master skills.

To better understand the link between high school math and college remediation, Fong, Huang, and Goel (2008) compared 12th grade mathematics curriculum and remedial courses at public colleges and universities in a western state. The purpose of the study was to develop a more comprehensive representation of remedial education in the state. The researchers posed the following questions:

- What mathematics do students complete in grade 12 and how successful are they?
- What is the remediation rate for each level of math and does the rate differ by performance?
- What affects do student characteristics (i.e., race, gender, two-year vs. four-year college) have on remediation rates?
- Do remediation rates differ by type of school attended as evaluated by locale and by making adequate yearly progress in compliance with the No Child Left Behind Act?

The sample (n=4,653) was comprised of students who graduated from public high schools in the state in 2006 and placed and enrolled in at least one remedial course at a public postsecondary school in the 2006-2007 academic year. Data were collected from grade 12 and freshman transcripts of students in the state and analyzed using descriptive

statistics. Fong et al. also conducted multivariate analysis to examine the correlation between remediation status and student characteristics. Researchers found that there was a distinct correlation between a student's high school course work and the need for remedial education. Results clearly showed that there was a misalignment between secondary education preparation and expectations by postsecondary institutions for student success.

Transition from Pre-college to College-level Course Work

Although there is a significant body of research about student persistence, as well as statistics regarding factors that affect attrition after the first year in postsecondary education, there is paucity in the research literature about students who never persist to college-level course work. In previous studies published by NCES, community college students who earned fewer than 10 college credits were removed from the samples (Adelman 1999, 2004, 2005, 2006). These students were referred to as "incidental students and considered to be not committed to pursuing a postsecondary credential" (Calcagno et al., 2007, p. 778).

Adelman (2004) conducted a national analysis of the high school class of 1992; more than eight years after high school graduation one out of eight students who attended some college quit before or at the 15 quarter credit mark. Calcagno et al. (2007) identified points of academic momentum. If students reached these points, it increased their momentum and their chance of successfully completing a certificate or degree. The author stated that earning the first 20 college-level credits (excluding remedial courses) increased a traditional-aged student's chance of graduating in any given quarter by a

factor of 7.6. Combined with other milestones, this one factor improved the chances of graduation for all students.

In a unique course design, Jenkins et al. (2010) studied students enrolled in Baltimore County community colleges who were concurrently enrolled in developmental English and college-level English courses. The same instructor taught the two courses back-to-back, and approximately 60% of students passed the college-level English course, as compared to 25% of students who took the two courses sequentially.

As detailed in the research literature, almost every successful developmental program includes comprehensive support services such as assessment and placement systems, tutoring, intrusive advising and counseling, and supportive faculty and staff Bettinger et al., 2013). Supplemental instruction and student success courses have also proven to be effective (Jenkins et al., 2010). Increasing completion rates for developmental students is challenging, but retention of students in developmental education is required if we want to improve America's declining position in the global economy (Ozz, 2012).

Summary of Literature Review

Based on a thorough review of the research literature regarding developmental education, community colleges must continue to increase the number of remedial courses offered as underprepared students comprise an increasingly larger percentage of the postsecondary student population. As more students decide to further their education, they frequently learn through placement tests that they lack the academic skills necessary to enter into college-level course work. Without successfully matriculating through

developmental course work, most students are unable to progress to college-level course work and will not reach their academic goal of college graduation.

The literature reviewed for this study revealed that studies regarding student persistence should consider specific populations of underprepared students. Researchers examined academic and social integration in the college environment, academic preparedness, the influence of specific courses, and barriers to success for academically underprepared college students. Common topics in this review of the literature included predictors of college success, multiple skill deficiency, and transition to college-level courses. Finally, while there are a plethora of quantitative approaches regarding persistence of community college students in developmental course work, there is a lack of qualitative research focusing on the success of these students.

Chapter 3 will discuss the research methodology and design as well as data collection and analysis procedures used in the current study.

Chapter 3

Methodology

The purpose of this study was to explore the perceptions and experiences of students that contributed to their persistence at a southeastern community college. A qualitative study with a phenomenological design was conducted to discover what students experienced as they succeeded through developmental course work. This research design explored student success in a developmental program at a community college through the voices of the students. Specifically, the intent was to report individual experiences of these students in a collective manner.

The use of qualitative research methodology at a local community college provided a rich, detailed description of students' perceptions and insights regarding reasons for persisting. Therefore, the nature of qualitative research was appropriate for this study as it allowed me to explore the research problem in order to present and understand the participant perspectives (Creswell, 2008).

Research Questions

In order to explore student perceptions that contributed to their success in developmental courses at a southeastern community college located in central Alabama, I used the following questions to guide this research. What does it mean for underprepared students to be successful in developmental course work at a community college? Sub-questions included:

- 1. What do students perceive as facilitators to success in developmental courses at a community college?
- 2. What do students perceive as challenges of being successful in developmental courses at a community college?

Research Design

The intent of this research was to discover and explore student experiences and perceptions regarding their success in developmental courses. This study focused on the comprehensive experiences of students and, therefore, was best suited for a phenomenological research method. According to Creswell (2009), qualitative research allows individuals to describe how they make sense of their lives. As the researcher, I attempted to determine what was really happening when students were able to successfully persist to college-level course work; student cooperation was essential.

According to Lincoln and Guba (1985), the researcher is the primary instrument in the processes of qualitative data collection and analysis. However, Moustakas (1994) implied that participants in phenomenological research serve as co-researchers. The study used a phenomenological approach, which Moustakas (1994) defined p as "knowledge as it appears to consciousness, the science of describing what one perceives, senses, and knows in one's immediate awareness and experience" (p. 26).

Moustakas (1994) further indicated that the aim of phenomenological research is to "explore and search for the essential, invariant structure (essence) or the central understanding meaning of the experiences that contain both the outward appearance and inward consciousness based on memories, images, and meaning" (p. 52).

Since this research explored the complex phenomena of students' lived experiences with developmental course work, a phenomenological approach was adequate for this study. Community college students reflected on their experiences as academically underprepared students as well as their persistence and success in collegelevel course work. As such, study participants were requested to make available data through individual interviews.

Site

The community college in this study was located in the southeastern part of the United States and is situated in an area that serves urban, suburban, and rural students. A multi-campus southeastern community college in a four-county area served as the research site for this study. Two of the college's campuses are located in a major metropolitan area located in central Alabama while the other two campuses are located in rural areas approximately 50 miles from the urban and suburban campuses. Jefferson State Community College is a comprehensive, public, two-year community college whose mission is to "provide an educational environment in which the needs of the individual student, the community, and other target audiences are met" (Jefferson State Community College Catalog, 2014-2015, p. 5).

Recent data available from the college's Office of Institutional Research, Information, and Records (IRIR) indicated that the total enrollment of Jefferson State Community College (Jeff State) was 8,887 for the fall of 2012. In fall 2012, 50% of students enrolled at Jeff State were between the ages of 17-22. Eighty percent of students were White, 20% African American, and 20% other ethnicities. Thirty-six percent of students attended the urban campus, 48% attended the suburban campus, and 12%

attended the two rural campuses. At least 10% of students overall enrolled in developmental courses for the 2012 fall semester.

Criterion for selecting the study site was the wealth of data that was generated as the southeastern community college which supported the research questions of this study. Thus, participants were recruited from each of the college's four campuses. Because the college admits students from urban, suburban, and rural school districts, the findings of the research may provide relevant discussion and information that will be assist other school districts and multi-campus community colleges across the nation. Additionally, this site was selected because the college offers a developmental education program that supports academically underprepared students.

Participants

Purposeful sampling was utilized for this study which allowed me to select cases that were "information rich" and provided for an in-depth study of student perceptions of their academic unpreparedness and subsequent persistence in their developmental education courses (Creswell, 2008). Permission to conduct this study was granted by the community college Vice President and the Dean of Enrollment Services/Registrar to access student academic records and to invite students to participate in this study. Participants in this study were community college students at Jeff State who placed into developmental English and math course work.

The sample for this study was selected from students who were identified as firsttime, full-time, degree seeking students in the fall semesters of 2012 and 2013. These degree-seeking participants expressed the intent to graduate. These students enrolled in English, reading, and math developmental courses in their first semester of matriculation.

I was given permission to request and access data from the College's Information Technology Department for students who successfully completed English and math developmental course work and were currently enrolled in or completed college-level course work. These students received an email from me requesting their participation in the study. A second email solicited the response of 28 students. Four students responded by phone and 15 responded to the second email. A review of academic transcripts confirmed that the students met the criteria for the study. The sample consisted of 12 students (n=12) who completed English, reading, and math developmental courses and were currently enrolled or completed college-level course work.

Interviews with participants were face-to face and conducted on the campus the student attended. I secured a conference room at each campus to conduct interviews. Students were informed of their rights to withdraw from the study at any time.

Data Collection

Data were collected through a series of open-ended questions, and interviewee responses were audio recorded utilizing a tape recorder. I asked probing questions to obtain clarification and to allow participants to elaborate (Creswell, 2008). I also used memos to record insights and general observations as the data were being collected. Interviews followed an appropriate interview protocol as prescribed by Creswell (2008) and approved by the University of Alabama at Birmingham Institutional Review Board (IRB) (2014).

I kept a hand-written research journal to reflect on the various experiences during the collection of data. Additionally, I worked at the same institution in various roles from academic advisor to director of admissions and retention, which provided considerable experience working with the population in the study. I began the process of bracketing during data collection. Notes were made during the interview sessions and reviewed with the recorded interviews.

Data Analysis

The initial preparation of the qualitative data consisted of tape recordings of students interviews. I organized interview recordings and supporting documents for review (Creswell, 2007). Additional preparation included the transcription process, which was a verbatim transcription of each audiotape in a saved Word document file for analysis. Prior to analysis, I checked the files to ensure their accuracy. I explored the qualitative data by reading though all of the data to have a broad understanding of the database (Creswell, 2007). This stage of analysis provided me an opportunity to record memos and field notes

These steps led to a search for broad categories of emergent and evolving themes of student perceptions of academic preparedness related to their success in developmental course work at a community college (Creswell, 2007). Data analysis began in earnest by coding the data; dividing data into phrases, sentences, and paragraphs; and labeling each unit (Hatch, 2002). These qualitative procedures allowed me to present a holistic analysis of the entire case or an embedded analysis of a specific case in the qualitative case study (Creswell, 2007). Qualitative data were placed into tables to organize and present themes and categories that emerged throughout the study (Creswell, 2007).

Lincoln and Guba (2000) suggested that validity in qualitative research focuses on the accuracy, trustworthiness, and credibility of the accounts provided by the researcher and participant. For this study, I utilized several verification strategies including member

checking, peer debriefing, and researcher journaling. Member checking was implemented by "soliciting the participants' views of the credibility" of the preliminary findings and interpretations (Creswell, 2007, p. 208). Thick, rich descriptions were used to capture participant quotes and allowed me to provide detailed descriptions of the participants, context, and setting of the study.

Verification

While the concept of validity is different for quantitative and qualitative studies, it is necessary for both types of research (Creswell, 2007). Lincoln and Guba (1985) recommended the use of terms such as authenticity and credibility to differentiate qualitative research. Creswell (2007), however, advocated qualitative researchers to articulate qualitative strategies.

Following Creswell's recommendations, various verification strategies were employed to account for the study's validity. Interview recordings and transcription of student responses provided me an opportunity to carefully review participant responses which increased the trustworthiness of the process (Maxwell. 1996). Member checking was implemented by reviewing the themes developed from participant interviews and sharing this information with participants, which allowed confirmation that participant voices were heard and interpreted correctly (Creswell & Miller, 2000).

Additionally, participants were given the opportunity to review their own transcriptions, the accuracy of the findings, and the ways in which their contributions were used in the study (Creswell, 2007). I also implemented an audit trail to clarify the reasoning behind the decisions I made in the analysis process, including doubts,

concerns, and questions. The use of an audit trail minimized potential researcher bias and increased the trustworthiness of the study (Creswell & Miller, 2000).

Ethical Considerations

This study followed the ethical principles as outlined in the Certification of Compliance with APA Ethical Principles, Publication Manual of the American Psychological Association, 6th edition. I sought permission from the University of Alabama at Birmingham Institutional Review Board (IRB) for Human Subjects Research through submission of the appropriate application to conduct this phenomenological study.

I ensured that the information submitted in the application to conduct this research was accurate. Once approval was granted from IRB, I recruited participants from the community college's 2012 and 2013 fall cohorts who enrolled in developmental course work for the 2012 and 2013 fall semesters. Each prospective recruit received a letter of recruitment and a letter of consent. The consent letter informed participants of (a) the purpose of the study; (b) their right to voluntarily decline to participate; (c) their right to withdraw from the study at any time with no negative consequences; (d) their right to confidentiality and protection of participant data; (e) potential risks or discomforts related to this study; (f) incentives for participating, which included the eligibility to participate in a drawing for a \$25.00 gift card; (g) their rights to be informed of the results of the study; and (h) the investigator's contact information.

All data for this study were stored in a locked file cabinet in a locked office on the college's campus of the study participants. Electronic files were stored via the college's secure server in a file with password-secure access by me. This office building securely

houses all student records and provides 24-hour campus police security surveillance via hourly checks by campus police officers and camera monitoring.

Role of the Researcher

As the researcher, I served as the principal instrument for collecting and analyzing data. Regarding the researcher being the main instrument in attaining and examining data, Merriam (2001) wrote:

A second characteristic of all forms of qualitative research is that the researcher is the primary instrument for data collection and analysis. Data are mediated through this human instrument, the researcher, rather than through some inanimate inventory, questionnaire, or computer. (p. 7)Having served in various Enrollment Services roles at Jefferson State Community College, I have interacted with academically prepared and underprepared students. I have been actively engaged with students from admissions to graduation.

I was aware of the fact that participants might have identified me as one of the individuals who helped them navigate the college environment. This possibility may have served as both a strength and weakness regarding the gathering of data during interview sessions. Merriam (2001) briefly discussed some of the complexities that can hinder effective data gathering regarding interviewer-respondent interactions. Thus, the interviewer-respondent interaction is a complex phenomenon. Both the researcher and the participant bring biases, attitudes, and physical characteristics that may influence the interaction and the data elicited. A skilled interviewer accounts for these factors in order to evaluate the data being obtained.

Past interactions that have occurred between me and the participants may have negatively influenced and/or confounded the interview sessions. However, I attempted to account for these factors through the questions and probes I used to gather data. I endeavored to keep my verbal and non-verbal reactions and responses to a minimum. I developed and articulated questions and probes which enabled participants to focus on the subject of discussion instead of the researcher who was soliciting the information.

I also kept my reactions (both verbal and non-verbal) to a minimum to allow each participant to provide answers that more accurately revealed his or her thoughts and ideas. I believe I used well-developed questions and probes, and kept verbal and nonverbal reactions to a minimum to diminish any confounding effects that could have resulted from past interactions between the me and study participants.

Summary

The purpose of this chapter was to provide a description of the research design intended to explore the experiences and perceptions of community college students who experienced the phenomena of being academically underprepared for college. Using qualitative methods of interviewing participants provided rich details regarding student experiences related to being placed into developmental course work. The qualitative research design may provide postsecondary educators with a greater understanding and an increased awareness of conditions that lead academically underprepared students succeed in developmental course work.

Chapter 4

Findings

The findings of this qualitative phenomenological study represent the perspectives of 12 students who entered a southeastern community college academically underprepared for college-level course work. In an effort to capture student experiences with the phenomenon, the following question was used to guide the study: What does it mean for underprepared students to be successful in developmental course work at a community college? Sub-questions included:

- 1. What do students perceive as facilitators to being successful in developmental courses at a community college?
- 2. What do students perceive as challenges of being successful in developmental courses at a community college?

Twelve participants were purposefully selected to participate in this study. These participants successfully completed developmental English and math courses and persisted to college-level English and math course work. This chapter presents an analysis of participant responses from semi-structured interviews as well as a review of documents and artifacts that reflect the academic preparedness of participants. A description of the research setting and participants is provided followed by a discussion of emergent themes.

Context

Student experiences in developmental courses offered at multiple campuses of a community college in central Alabama were explored in this study. College faculty taught these developmental courses; however, courses did not count for college credit. Courses were taught at each of the college's four campuses, which includes urban, suburban, and rural locations (see Table 1). A total of 12 interviews were conducted across the college's four campuses. Participants in this study represented first-time, fulltime freshmen from the college's 2012 and 2013 cohorts from the four campuses. Ten of the participants were first-generation college students. Participants were required to enroll in multiple developmental classes based on their performance on the Compass Placement Exams or ACT scores.

Description of Research Sites in the Study - Fall 2014						
Site	Student	Demographic Area	City/State	County		
	Population					
1	2,805	Urban	Birmingham,	Jefferson		
			AL	County		
2	3,991	Suburban	Hoover, AL	Shelby County		
3	557	Rural	Clanton, AL	Chilton County		
4	520	Rural	Pell City AL	St. Clair		
				County		

Table 1

Participants

The 12 participants in this study represented a purposeful sample of central Alabama community college students from rural, suburban, and urban demographic areas. Two of the participants graduated from urban high schools, five from rural high schools, and five from suburban high schools. Seven of the participants were female, and five were male. Pseudonyms were established to protect the confidentiality of each

participant. Each student was a member of either the 2012 or the 2013 cohorts, and all but one was still a student at the community college at the completion of this study. One student transferred to a four-year public university at the end of the 2015 spring term.

Students had taken the Compass Placement tests upon admission to the college, and placement test scores required them to register for math, and English, and reading, developmental courses. Participants enrolled in three developmental courses in their first semester of study at the community college. Courses included Math 090 or Math 098, Reading 085, and English 093. Students successfully persisted through the developmental course work and were enrolled in or had completed college-level courses in math and English. Study participants are described in Tables 2 and 3. Table 2 presents a demographic view of participants including first-generation college student status and financial aid information. Table 3 presents the community college campus at which students took their classes, high school, high school GPA, current college GPA, and college major.

Martha is a 20 year old Caucasian female. She graduated from a rural high school with a 2.85 GPA. Martha is a single parent and a first-generation college student. She is a Social Work major with a 2.61 college GPA. Martha is a recipient of financial aid. She attends classes and works at the urban campus of the community college in this study. Martha also takes online classes in order to work 24 hours a week.

Jerica is a 20 year old African American female. She graduated from an urban high school with a 2.12 GPA. She is a single parent and currently receives Pell Grant. She also works at the college and plans to transfer after to the local predominately African American college. She is majoring in social work.

Alice is a 21 year old Caucasian female. She is a first-generation college student and receives financial aid. Alice graduated from a rural high school with a 2.96 GPA. She attends both the rural and the suburban campuses. She works a part-time job. She has a 3.34 GPA and plans to transfer to a four-year university and major in nursing.

Alexis is a 20 year old Caucasian female. She is a Veterinary Technology major. She graduated from a suburban high school with a 2.23 GPA. She currently attends the urban campus because her major is offered there. She works part-time for a Veterinarian and receives financial aid. She is a first-generation college student with a 1.90 GPA.

Billie is a 20 year old Caucasian female. Billie is a first-generation Business major. She graduated from a suburban high school with a 1.66 GPA. Billie is a financial aid recipient with a 2.12 college GPA. She attends the suburban campus and works part-time at a nearby department store.

Don is a 20 year old African American male. He graduated from a suburban high school with a 1.98 GPA. Don is an Electrical Engineering major with a 2.56 GPA. He attends the suburban campus near his home. Don plans to transfer to a four-year university to complete his degree.

Collin is a 20 year old African American male. Collin graduated from an urban high school with a 2.53 GPA. Collin attends the urban campus because his major is only available at the urban campus. He is a Biomedical Equipment Technology major with a 3.15 GPA. Collin will graduate in May of 2016 with an Associate in Applied Science (AAS) degree. Upon graduation, Collin plans to join the workforce full-time. He also plans to earn his bachelor's degree.

Maria is a 21 year old African American female. She is a first-generation Child Development major. Maria graduated from a rural high school with a 3.65 GPA. She receives financial aid and works part-time at a day care. Maria's current GPA is 2.97, and she takes classes at the rural and the urban campuses. Maria is on scholarship and receives some financial aid.

Pat is a 21 year old Hispanic female. Pat graduated from a suburban high school with a 2.77 GPA. Pat attends the suburban campus in Hoover. She is a nursing major with a current GPA of 3.04. Pat does not qualify for financial aid. She is a first-generation student who pays out of pocket for her classes. Pat's current GPA is 3.04 and she hopes to be admitted into the nursing program to earn her registered nursing degree.

Al is a 21 year old Hispanic male. Al graduated from a rural high school with a 3.66 GPA. Al is a first-generation student who works an average of 30 hours per week at his part-time job. He takes classes at the rural campus. Al is a general studies major with a 3.74 GPA. Al is not eligible for financial aid. Al would like to earn an associate degree before transferring to a four-year college or university.

Matt is a 20 year old Caucasian male. He graduated from a suburban high school with a 3.24 GPA. He is not eligible for financial aid. Matt is a first-generation college student. He works part-time to pay his tuition. His current GPA is a 2.72, and he plans to transfer to a small, private university.

Jeff is a 20 year old Caucasian male. Jeff is a rural high school graduate with a 3.83 high school GPA. He is a first- generation college student. Jeff attends the rural campus closest to his home. Jeff is a business major with a GPA of 2.77. Jeff was

awarded financial aid. Jeff also works part-time and plans to transfer to a large university close to home.

Tables 2 and 3 present demographic information for each of the 12 participants.

Data are displayed to provide information relevant to the study.

Enrolled Participant Gender Race or Employed First-Financial Age Ethnicity Generation Aid F FT Y Y Y Martha 20 Caucasian Y Jerica 20 F FT AA Y Ν F FT Y Y Y Alice 21 Caucasian F Y Y 20 FT Caucasian Y Alexis F FT Caucasian Y Y Y Billie 20 Y Μ FT Ν Ν Don 20 AA Collin 20 М FT AA Y Y Y Maria F FT Y Y Y 21 AA F Y Y Pat 21 FT Hispanic Ν Al 21 Μ FT Hispanic Y Y Ν Caucasian Y FT Y Ν Matt 20 Μ Y Y Jeff 20 Μ FT Caucasian Y

Description of Research Participants

Table 2

Participant	High School	HS GPA	Current GPA	Major
Martha	Rural	2.85	2.61	Social Work
Jerica	Urban	2.12	2.00	Social Work
Alice	Rural	2.96	3.34	Pre-nursing
Alexis	Suburban	2.23	1.90	Veterinary Technology
Billie	Suburban	1.66	2.12	Business
Don	Suburban	1.98	2.56	Electrical Engineering
Collin	Urban	2.53	3.15	Biomedical Equipment
Maria	Rural	3.65	2.97	Child Development
Pat	Suburban	2.77	3.04	Nursing
Al	Rural	3.66	3.74	General Studies
Matt	Suburban	3.24	2.72	General Studies
Jeff	Rural	3.83	2.77	Business

Table 3Participant High School and College Summary

Themes

Based on in-depth interviews as well as analysis of documents and artifacts, clear themes related to barriers and facilitators of student persistence and success in developmental education course work emerged. According to Hatch (2002), data analysis is a systematic search for meaning. Hatch (2002) affirmed that during data analysis, researchers will recognize patterns, identify themes, discover relationships, develop explanations, and make interpretations. Likewise, Creswell (2007) emphasized the use of systematic data analysis procedures of significant statements, meanings, and themes that lead to an exhaustive description of the essence of the phenomenon.

The goal of data analysis for this study was to identify themes that described the essence of the experiences of 12 students based on their enrollment in and successful completion of developmental course work at a community college. In an effort to hear each student's voice, 12 semi-structured interviews were conducted. In addition, documents related to student experiences were collected. These documents included high school transcripts, college transcripts, and financial aid documents.

Data analysis procedures began once the interview data were converted from audiotapes to transcribed text. Data reduction began with reading and re-reading the transcribed data. Themes began to emerge with the initial reading of each transcribed interview. Based on participant interviews and responses, the following four themes emerged: (1) expectation, (2) motivation, (3) challenges, and (4) goal commitment. These themes were explored in more detail to develop a better understanding of the phenomenon. A summary of themes can be found in Table 4.

Summary of Themes						
Themes	Sub-Themes					
Expectation	• Why am I here					
	Ready for College					
Motivation	• Determination					
	Personal Goals					
	Family Support					
Challenges	• Faculty behavior					
	• Time management					
	Financial Resources					
	College Support Services					
Academic Integration	Academic Performance					
	Faculty Support					
	Positive Attitude					

Table 4Summary of Themes

Expectations

Community colleges have become the major point of access and entry to higher education in the United States. These colleges often serve as the gateway for underprepared students to enter college. Many new community college students generally arrive on campus academically underprepared, apprehensive about their education, and lacking confidence. The interviews revealed that students did not know what to expect from their college experience and despite their apprehension, students understood why they were at the community college. Students came to college for a myriad of reasons, including location, convenience, and affordability, as well as to take general education courses before transferring to a four-year college. Reasons for choosing to attend the community college evolved as a subtheme as students discussed their expectations of the college and of themselves.

Why am I here? Both Martha and Don initially applied to large state universities and were rejected. However, Martha explained that she applied to the University of Alabama at Birmingham (UAB):

Because that is the school I really wanted to go to. They accepted me in the Joint Admissions and they told me I was one point off my ACT score and the admissions office invited me to be a part of the joint admissions program. They told me to go to community college and earn an associate degree and if I had a 3.0 GPA they would give me a scholarship and they gave me a list of schools I could attend and be in the program and this one was closest to me so I chose this one.

Don, who wanted to go to college, noted:

I sat down and talked with my mom and she told me that if I can take my basics and then transfer then it will be cheaper because \$1,000 versus \$10,000. There's a big difference and that is the main reason I chose Jeff State.

Jerica's mom attended community college, and Jerica said she felt lucky to be in college. She said, "I never thought I was smart enough to go to college. I had a lot of selfdoubt but I remember that my grandmother told me before she passed away. She said go to college. You can go to college." Pat and Al also expressed feelings of being "lucky" and "blessed" to be at the community college because of the passage of the Dream Act.

Pat shared "I am not a citizen but because of the Dream Act, I can now go to college." The remaining nine participants indicated that community college was a good place to start and liked the idea of being close to home.

Matt, Jeff, and Billie all noted that they felt comfortable commuting to the college. Alexis and Collin described the community college as a "good school" and many of the students they knew in high school were enrolled in the college. Due to all of the familiar faces on campus, Alexis suggested that attending Jeff State "felt a little bit like high school." In describing one rationale for attending community college, Martha stated:

I think most of the people who come to community colleges work and have other things going on in their life. We have a lot of students who are older with family's that is the reason why some of them end up at a community college rather than a big university.

Ready for college. Participants described their expectations of the college and of themselves as they entered the community college. As students recalled their perceptions, they described themselves as having a lack of confidence about their academic skills and ability. Study participants indicated their expectations were based on information they received from high school teachers and friends. Three students expected to have class in large lecture halls with uncaring instructors. Jerica said her high school teachers told her, "You are not ready for college work." Pat and Al also received negative feedback about their ability to perform in college. Pat recalled wondering if her English skills would hinder her success while Al remembered being told that he was not "smart enough" to succeed in college.

Students also struggled to navigate the nonacademic demands of college such as understanding how to schedule and register for classes. Maria expressed being overwhelmed as she attempted to make her class schedule. According to Maria, it took her an entire day to "figure out that TR meant Tuesday and Thursday." Maria explained:

When you were in high school, you always had a teacher telling you what to do, how to do it, and when to do it. You arrive at college there is no one telling you anything. They didn't tell me what to do so I didn't know what to expect from college.

Study participants concurred that they were unaware they would be required to change their academic habits from high school. They also agreed that college instructors expected different habits and behavior than those expected by their high school teachers. Don asserted, "Students should begin learning about college in the 9th grade so students will be more prepared." However, students reported a shift in their expectations as they gained more confidence and understating of the college and of their ability to relate and learn specific skills. Alexis expressed, "I needed a wake-up call."

With the exception of Jerica, none of the students in this study expected to enroll in developmental courses. Jerica said that she was excited to enroll in these development courses because "we only studied for the exit exam in high school." Participants expressed disappointed disappointment at being placed into developmental classes. However, the participants also noted that their confidence increased as their academic success increased. Despite facing the negative

experiences of not being academically prepared for success, participants indicated they are more motivated to achieve their goals and future success.

Motivation

Motivation connected aspirations of career success and commitment to degree completion, which created a powerful incentive for students to persist through their developmental course work. Regardless of negative feedback that may have questioned the ability of the participants to succeed in college, the students in this study reported they were motivated by other reasons. The greatest motivators expressed by students included becoming a successful person, having pride, finding career opportunities, being a first-generation college student, and family expectations. Participants indicated that they were motivated to complete their developmental courses because they had a desire to do well.

Determination. Staying focused on their goal to of graduating from college was a primary facilitator of participant success in developmental courses. Being determined assisted these participants in overcoming barriers. The students in this study indicated their determination increased as they matriculated through the developmental course work. Participants communicated an overwhelming sense of pride as they spoke of their desire to work hard in their classes. Don explained:

For me, failure is not an option. I am a hard worker. I always have to show people that I can succeed. I did not push myself in high school but I want to make A's in college. I was so proud when I made my first "A" in college. I was beaming from ear to ear.

Pat and Al expressed similar feelings about being proud of their work. Pat stated:

I like making good grades. It just shows other people that just because I was not born in America I can still do good [*sic*] in class. A lot of people expect me to be a failure or not make it but I am working very, very hard every day to prove that I can make it. I am proud of graduating from high school and I will be proud when I graduate from college.

Jeff, Jerica, and Billie identified several family members who had started college but subsequently quit. The consensus from this group was to work hard and be proud of it. Jeff stated, "I was motivated by my family but I also felt a sense of pride about being in college and I really feel like I can finish these classes and get my degree." Jerica concurred that she was "so proud to be finally learning and making good grades when I always felt like I would be a failure."

The participants in this study affirmed that a positive attitude helped to increase their determination to complete the developmental course work and strive to complete their college degree.

Personal goals. The voices of the female participants were heard as their commitment to being single mothers emerged as a facilitator of student success in the developmental courses.

Jerica, a single mother, further described her motivation for attending college: I have a daughter in high school and she is the thing that motivates me the most because I want to be a good example for her and I will be able to get a job and not have to work so many hours for nothing. I will be able to actually have a career rather than just work a job. Don't get me wrong, I really wanted to give up because the course became harder. But I kept thinking about my baby and I kept thinking that I can do this.

Martha, also a single mother, expressed similar sentiments. She noted that she wanted to obtain a degree in order to have a better future for her and her child. She further suggested that earning a degree would allow her to give her daughter greater opportunities in the future.

According to Maria, her mom attended Jeff State "but had to drop out because she had to get married but she encourages me stay focused and be successful even though it is hard sometimes. I want to stay in college and be successful and educated."

Family support. Participants indicated that one of their greatest motivators to complete their classes was family. The study participants mentioned that motivation came from their parents, siblings, grandparents, or other family members. The participants concurred that both the support and love of family members served as a source of motivation for success in their course work. Don, whose father is in the military, noted that he was following his dad's example:

My parents didn't go to college. My dad went straight into the military, my mom went with him, and both of my siblings went to college so that's something that I wanted to pursue and actually do something on my own and to start my own career. At first, I wanted to follow my dad's footsteps and go into the military right after high school but my parents told me to go to college.

Alice, Alexis, and Collin acknowledged that they had a strong desire to do well because of their family's expectations. Collin stated, "There is no room for failure. My

parents expect me to be successful because neither one of them went to college." Both Alice and Alexis shared similar thoughts. Alice noted that there were times she wanted to drop out "but I don't want to be a quitter. I was taught to work hard for everything in life and as my grandmother told me so many times: don't ever give up."

Alexis identified her motivation to complete developmental courses and to stay in college was recognizing that she could do anything no matter how hard it was, "I just have to keep trying. My family is so proud of me. I have to keep going so I am going to earn the associates degree and be successful."

Martha's major source of family support was her mom. Martha explained: My mom made me feel as though I wasn't behind or didn't know what I was doing. She just said think of it as you are just retouching the basics and you are now coming to college. She made me feel like being in developmental courses was going to make me even more prepared when I start taking college courses.

Al and Pat, both first-generation, immigrant students, recognized the value of earning a college degree. Their motivation was the desire to promote social change for all immigrant students. Al emphasized, "My education can never be taken away from me. I can use it to influence others in my family and community. I hope they will see my accomplishment and it will help them have a desire to do better."

Pat agreed that it is good to see that her college education can influence her siblings to continue their education. She explained, "I am motivated because I help to support my family and my family encourages me to fulfill my dream of a college education."

Challenges

Managing time, talking to instructors, identifying financial aid and campus resources, and transitioning to college-level instruction were the dominant challenges described by these 12 students. Students noted that they had experienced difficulties transitioning from courses taught by high school teachers to those taught by college instructors. Finding ways to overcome the barriers meant the participants acknowledging their own lack of awareness and misconceptions of the effort students must put forth to be successful in college.

Faculty behavior. Based on participant interviews, instructors had had both positive and negative impacts on student success in developmental courses. Although students were successful in their developmental math and English courses, students expressed mixed feelings about instructors. Participants identified math courses as especially challenging; however, students quickly realized that success in math courses was necessary. Alice expressed concerns about the amount of time instructors spent on showing the class how to work math problems. She stated:

In high school, we had teachers who would stand there and teach us, but in college they [instructors] just show you one problem and we have to do it by ourselves. The instructor gave us 15 minutes at the end of the class to go ahead and start it or if you had any questions.

Several students also suggested that their professors having a sound teaching methodology would have helped them transition more seamlessly to college. In terms of pedagogy, Pat said:

I'm not saying that this teaching method is bad. I'm saying that I would like the teacher to be more attentive full time in class. Sometimes, they [instructors] just tell us what to do and leave. I feel that is not good. If you want students to make good grades then they need to be with us. It is part of their job and [they] have to make sure that we understand.

Alexis also expressed concerns about college-level instruction, especially as related to her math instructor. She stated:

I wanted my math instructor to show more interest in my success. I think that students would be more successful if the instructors would go over [the material] more. I feel like I was never in [class] for the full amount of time. Most classes are in there for an hour and 15 or 20 minutes. He would usually get there 30 minutes late and we would leave early most of the time. We weren't in [class] the full amount of time. They go really fast teaching [course material]. Even when you stop and ask questions, you feel like they're on a schedule so you just kind of let them roll with it.

Additionally, Jeff noted that his instructors for Math 090 and Math 098 did not assign homework. Instead, students would attend class, take notes, and then leave without assigned work.

College support services. Students indicated that access to resources to help them be successful in their developmental courses was a major challenge. Participants stated that the only tutoring available to them was online. Further, several students suggested that while the online format was helpful, they would have preferred to receive in-person support on campus. A number of students indicated that they had not taken

advantage of the online tutoring because they did not feel comfortable with the format. For example, Al said:

I was not sure about using the online tutoring but I did try it. I did run out of time because I found out that you only get so much time. It did help but I needed more hours of tutoring and you only get so many hours. I ran out of hours long before my class ended.

Limited access to online tutorials was an experience shared by the majority of participants. However, Martha, who took online courses, received support from videos posted by her instructor in addition to online tutorials. She said:

I used the videos to help me understand. I watched the videos over and over again. I would look at his notes and write down all of the formulas. I never tried to use the Smart thinking [online tutorial program] because I did not know what it was.

Four of the participants regularly visited the Advising Center. Jerica shared, "every time I saw an advisor she made me feel better about being in developmental classes. She told me I needed the courses and just stick it out and I'll get through it."

Time management. Poor time management was a common challenge experienced by students. The new found freedom of scheduling classes also presented the issue of prioritizing study time. Students realized that time to study must also be scheduled. Participants identified poor time management skills as an additional challenge in attending college and communicated similar experiences about managing their time and forming good habits as related to their developmental course work. Billie explained:

It [developmental course] was a refresher course so at first I had poor study habits. But it clicked one day when I was sitting in my Math 090 class that I needed this class to get to the next class. So, I stopped being lazy and really started to try to use my time better. I started spending more time in the school library and that really helped me to focus on getting [course work] done.

The ability to balance a more demanding course load along with work and other responsibilities proved more challenging for two of the female students who were also first-time mothers. Unlike other participants, being a single parent placed an additional burden on the academic success of these students. Jerica said that she found it difficult to manage work-study, motherhood, and schoolwork. Similarly, Martha said that she had to learn to stay on top of things so that she could get her work done. "I would do my homework during my work-study hours but I sometimes felt that my grades could have been better if I had more time. But I needed the money from work to help take care of my daughter."

The inability to manage time often led to procrastination. Having little or no experience in multitasking became a barrier for students enrolled in developmental courses. Pat suggested that she had too many distractions at home but during class and at school, she was more focused and could concentrate more directly on her work. Al said he wanted school to be his priority but found that he was always struggling to catch up because of his work schedule. Collin reflected, "I had a very difficult time managing my time from the first day of class. I thought 15 to 20 minutes of study time was enough but I realized that this was not high school." Matt and Alexis concurred that time management

also meant making the right decisions about how much study time was necessary. Likewise, Jeff related that he had to make time for college, work, school, and homework.

Financial resources. Participants identified financial resources as a challenge as several expressed concern that they were paying for courses they had already taken in high school. Several students viewed their enrollment in developmental courses as an unnecessary obstacle and a waste of time and money since developmental course do not accrue credit hours toward their degree. Don described developmental course work as "a waste of time but I need them to be successful in my core classes." Matt, who was not receiving financial aid, said that he was "pretty upset to be losing time and money for courses that don't count for anything."

Al and Pat, who paid for tuition out-of-pocket, suggested that they valued their education more than students who were receiving financial aid because they were paying for courses themselves. In describing his experience with developmental courses, Pat said:

Honestly, I do think that sometimes I would be further ahead and have more money. But I am kind of stuck in the middle between it. If it wasn't for those remedial classes, where would I be today or what would my grades be today. Then I think about that if I would have started my college-level then I may not be successful at all.

All of the participants in this study worked part-time and went to school full-time. For these students, financial sacrifices were a by-product of their commitment to academic success. Participants concurred that as studying became more important work became secondary. Al explained:

You have to make choices about what is more important. Is it more money to buy stuff or is it more hours to study. I worked 30 hours a week when I began school. I talked to my supervisor about how important school was to me. I was able to cut back to 20 hours.

In order to be successful, students in this study recognized that time for studying and homework was had to become their first priority.

Academic Integration

The overriding theme for success in developmental course work was participant behaviors and dispositions. Participants depicted a sense of self-confidence rooted in their desire to succeed not only in college but also in life. Additionally, instructor behavior emerged in both barriers and facilitators of success.

Academic performance. Students in this study affirmed that they were motivated to succeed by incentives such as high paying jobs and interesting careers. However, the lack of academic preparedness of participants did not align with their dreams of grand careers. After acknowledging their academic deficits, participants articulated that positive academic performance would promote changes in their academic skills. When asked to identify a behavior that positively contributed to his success, Jeff stated, "Showing up for class." Collin elaborated, "When you're absent you become lost and you can't catch up." Participants also cited turning in homework assignments as critical to their success in developmental courses. Maria stated:

I got in the habit of completing my assignment in Reading 085 because it was the easiest class for me. I already knew everything. You would read and answer questions. I breezed through it. I didn't really need any help for reading. In

English, it was a little more difficult. But we would write our papers and discuss it. It was very important to show up for class and turn in your homework. Alice agreed with this assessment by stating:

You have to do your homework even if the teacher does not grade it. And you have to show up for class. This way you can ask questions and really get an understanding about the subject. When you do this you won't be overwhelmed before you even get started and you can be successful in every class. I really love my remedial courses and I am so glad that I took them because I will graduate soon and I [will] have a very good GPA.

There was consensus among study participants that to achieve short- and longterm academic success, it was important for them to recognize the benefits of developmental education, including the ability to acquire the requisite academic skills. For example, Don identified his goal of transferring to the University of North Alabama to study engineering. However, before he could do so, he said, "I needed those developmental courses because I have to take Calculus. I feel that I will be ready to transfer in the fall because I always tried to keep a positive attitude about those [developmental] courses."

Positive attitude. Maintaining a positive attitude as they faced various barriers to academic success may have helped these students overcome obstacles as they matriculated through higher education. Alexis reflected that having a positive attitude helped her to communicate with her instructors. She shared:

Here at college I have learned to talk to my teachers and find out what I need to do. In high school, I was shy and just went to class. I made sure I talked to the

teachers so that I could understand what they expected.

Martha agreed that a positive attitude toward the instructor and the course was helpful to her success. Martha said she loved her developmental classes as well as her instructors. Alice agreed stating that she "honestly could not think of any bad things" because she had a "connection with all of my instructors and it was just cool." Jerica suggested that enrolling in developmental courses "takes the fear out of college and when you are not afraid you do better."

Faculty support. Maria identified several positive experiences with instructors who made course work more engaging and encouraged students to excel and achieve. Maria described her math instructor as very positive and noted that this instructor "definitely talked me out of dropping the class." Maria noted that this math instructor offered to help her with her work and was willing to stay after to class to provide math tutoring. According to Maria, the instructor also indicated that he might make available some extra credit as the class moved closer to the final exam.

Artifacts

Data were extracted from the college's student information system to develop a richer understanding of general persistence in developmental education courses over time. This period was inclusive of participants' initial terms of enrollment at the college through completion of college-level courses. Artifacts included college transcripts, high school transcripts, test scores, financial aid transcripts, and reports generated by the instructional technology (IT) Department.

College transcripts allowed me to track persistence from enrollment in developmental course work to enrollment or completion of college-level course work.

Student high school transcripts provided participants' final high school grade point average, high school class rank, size, and percentile. Information obtained from student academic transcripts was beneficial in providing clarification throughout semi-structured interviews. Archived data in the college's Banner Student System on withdrawal and failure rates in developmental and college-level courses as well as demographic characteristics were also acquired. Demographics included (a) retention, (b) grade point average, (c) age, (d) ethnicity, (e) gender, (f) status as first-time, full-time recent high school graduates.

Summary

Qualitative data were collected from semi-structured interviews, document analysis, and artifacts. Analysis of these data yielded the following four themes: (1) expectation, (2) motivation, (3) challenges, and (4) commitment. Participant perspectives were depicted through direct quotes to provide rich information about participants' goals and experiences despite initial enrollment in developmental education courses.

Chapter 5

Discussion

Chapter 5 focuses on the implications of this study and recommendations for future research regarding the experiences of students in developmental education at community colleges. As cited in previous chapters, researchers have consistently noted that more than half of all new college students begin their postsecondary education at a community college (Bailey, Jeong, & Cho, 2010; Martorell & McFarlin, 2011; Hussar & Bailey, 2009). America's community colleges continue to play an increasingly important role in educating recent high school graduates (Boatman & Long, 2010; Daughtery, 2002; Goldrick-Rab, 2010;McCabe, 2003). Given the open-door admissions policies of community colleges, it is not surprising that many students arrive unprepared or underprepared for college-level work and must be referred to developmental courses for which they will receive no college credit. However, a lack of preparedness for collegelevel work is a major obstacle for students who must begin college in developmental education courses before they can complete their degree.

Nationally, nearly 41% of recent high school graduates enter college unprepared or underprepared and must take one or more developmental courses (Boatman & Long, 2013). Considering the current economic challenges in the United States, finding ways to increase success rates of academically underprepared students at community colleges is important to both our students and our economy. Additionally, administrators and faculty members of postsecondary institutions are greatly concerned with accountability and

student outcomes. It has become a national priority for institutions of higher education to carefully consider which student experiences lead to successful completion of developmental courses. The findings of this study are intended to add to the body of knowledge of student success in developmental education courses at a community college.

Chapter 1 of this study introduced the research, the background, significance, purpose, approach, limitations and delimitations, and terminology. The purpose of this study was to explore perspectives of academically underprepared students who had successfully completed developmental courses at a southeastern multi-campus community college. This study was guided by one primary question: What does it mean for academically underprepared students to be successful in developmental course work at a community college?

A qualitative approach was considered appropriate to explore the research question. A phenomenological methodology was used to develop an understanding of underprepared community college students to persist through developmental math and English courses, including reading, to college level math and English. As the researcher, I made no assumptions that participants would persist to earn an associate degree or transfer to a four-year college or university.

Chapter 2 included a review of the literature on Tinto's (1975, 1987, 1993) academic integration theory which asserts that students bring characteristics to college that encourage or discourage persistence. Relevant research was also reviewed regarding the history of community colleges, student persistence at community colleges, academic preparedness, and developmental course work.

Chapter 3 outlined the research approach and methodology, research site and sample, and data collection and analysis procedures. Twelve students participated in one-on-one, semi-structured interviews. Each participant was a first-time, full-time college students who enrolled in either fall 2012 or fall 2013. All participants placed into three developmental courses and had, at the time of this study, completed all developmental course work and were enrolled in or had completed college-level English and math courses. Chapter 4 presented a summary of themes generated by an exploration of the perceptions of academically underprepared students who had successfully completed developmental courses at a southeastern multi-campus community college.

The final chapter of this study discusses the findings, implications of this study, and recommendations for future research. Specifically, future investigators are encouraged to further explore the experiences of unprepared or underprepared community college students in developmental education programs.

Summary of Major Findings

The research yielded four major themes related to the experiences of participants who were recent high school graduates and had successfully completed developmental course work at a southeastern community college. Research participants provided thoughtful responses regarding their experiences in developmental education courses, including several academic experiences that they attributed to their success in these developmental courses.

For these 12 students, their ability to transition from high school to college was remarkable considering they had little knowledge of what the college experience actually entailed. Notably, participants communicated that they had come to community college

without well-defined goals. Although they placed into multiple developmental courses and despite the fact that they had no pre-college experiences, participant expectations for educational success were high. Consistent with research literature on student persistence (Tinto, 1975, 1993), student *expectations* for success may have positively influenced their *actual* success.

Participants successfully completed their developmental course work over a foursemester period indicating a strong desire to complete their degree requirements. This observation supports findings which suggest that time is the enemy of persistence to degree completion, especially for students in developmental education (Jones, 2012). In fact, Complete College America reported that only 13.9% of community college students obtain an associate's degree within three years; for students who require developmental courses, the percentage decreases to 9.5%.

Participants also articulated a motivation to persist based on determination, personal goal commitment, and family support. Personal and professional goals were expressed through students' desire to have successful careers for which they had a passion as well as a need to make their families proud. Two students identified career goals as social workers and two were pursuing nursing majors. Their career aspirations seemed to help them stay focused on success in their developmental courses. Don said that failure "was not an option" and Alice stated, "I don't want to be a quitter." Participants described themselves as hard working and dedicated students. As if speaking for the group, Maria expressed a desire to "stay in college and be successful and educated."

One major challenge to successful completion of developmental courses as identified by participants was faculty behavior. There was consensus among participants that the majority of instructors had been helpful and caring; however, all of the participants specifically mentioned problems they had encountered with math instructors. Participants at each campus expressed a desire for instructors in developmental courses to show more interest in student success, especially in math courses. Additionally, participants communicated a need for greater interaction with instructors in the classroom setting. While Maria spoke of a math instructor who was "positive and definitely talked me out of dropping the class" and was "willing to work with me," the majority of participants perceived stronger connections with their reading and English instructors who demonstrated "a caring and understanding attitude" toward students.

Situated within the theme of challenges was participants' inability to effectively manage their time. With the exception of summer terms, all of the participants were enrolled in classes as full-time students. Two of the participants were single parents who also worked at the college; the remaining 10 participants worked part-time jobs.

Participants acknowledged that they struggled to balance work and school schedules and often felt "pulled" in multiple directions. Students expressed the need to be able to prioritize their time and make the "right decisions." Frequently, students had to work to support themselves, and some worked to help support their families. The ability to juggle class and work schedules while finding time to study was often difficult and students worried about staying focused on course assignments.

Study participants communicated a considerable lack of financial resources to support their academic and career goals. Based on limited funds, several participants

were critical of their placement in developmental courses "that don't count for anything." Three participants received Pell Grants which they relied on to sustain themselves throughout each semester. For these students, success in developmental courses was as relevant as for students who paid for developmental courses out-of-pocket.

Notably, the period of Pell Grant eligibility has been reduced from nine years to six years, and Pell Grants have been limited to two semesters per academic award year. This means that students have less time to progress through their academic course work and enrollment in developmental course work is part of the calculation that comprises their total financial aid award. As previously stated, all of the participants held part-time jobs to supplement their educational and day-to-day living expenses.

Multiple study participants noted that they rarely accessed the college's support services, although several sought assistance from the college's Smarthinking online tutorial program for support in math. Students said that they felt uncomfortable using this online format but the alternative of receiving no assistance forced them to make the most of the limited hours available to them. Although students were encouraged by their instructors to utilize this service, and many had done so, students also devised other support strategies such as asking for help from friends and former high school teachers.

Motivation from friends and family served to encourage students to persist through their developmental courses. In addition, students reported occasionally visiting the academic advising center during early registration and at the end of the semester (Byrd & McDonald, 2005).

Study participants seemed completely committed to being successful at every level of their college education. Previously, researchers have posited that community

college students do not make clear decisions to persist to goal attainment (Edgecombe, 2011; Grubb, 2013; Hodara et al., 2012; Waycaster, 2001). In this study, however, students expressed a desire to not only persist through college-level courses, but to persist to degree completion. Don, the engineering student, recognized that he "needed those developmental courses" to take Calculus. Similarly, participants found strategies to be successful. Students attended developmental courses and completed every homework assignment "even if the teacher did not grade it."

Participants identified the completion of homework assignments as critical to their success in developmental courses. Students further recognized that enrolling in developmental courses had helped them form solid study habits for other courses. The skills and strategies students gained in developmental courses introduced them to new knowledge or reinforced prior knowledge of concepts as they persisted in their college-level courses.

Participants in this study needed extensive remediation, and for these students a foundation was built through developmental course work which sustained them through college-level course work. While previous researchers have noted that students with extreme basic skills deficiency are at greater risk for dropping out (Hawley & Harris, 2005; Hoyt, 1999), Fike and Fike (2008) concluded that remediation could positively affect retention.

Academic integration was the final theme of this study. The challenge for these academically underprepared students as they entered the community college was to find a way to balance external responsibilities with school responsibilities. For some study participants, a lack of basic skills continued as they enrolled in college-level courses.

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Student perspectives illustrated the need for community college faculty and staff members to utilize various and differentiated strategies to assist students in navigating both college as well as life outside of college.

Study participants used resources provided by the college and their external supports as sources of motivation to persist through developmental course work. Perseverance, hard work, and determination fostered a level of self-confidence and motivated students to pursue a better life for themselves and to make their families proud. However, four study participants may have been at a greater deficit because of their demographic background.

Though they worked hard, the struggle for success appeared to be greater for the two single parents and the two students whose primary language was other than English. Despite these continuous obstacles, both single parents successfully completed their developmental course work. As did the two students whose second language was English. For these students, success was more than a means of getting a better job, it was motivation for a better life.

The findings of this research study support Tinto's (1975, 1987, 1993) theory of academic integration. However, as an exploratory study, student voices revealed other conditions that may have also contributed to student success. Goal commitment was influenced by student behaviors and dispositions. Additionally, even though study participants were academically underprepared, the major challenge they faced was not necessarily persisting through developmental course work but rather managing external factors, such as academic, family, and work obligations.

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Participant experiences were shaped by who they were and the characteristics they brought with them to college. Their voices demonstrated that college faculty members can influence student experiences, either positively or negatively, in developmental course work. Furthermore, the relevance of family, friends, and other members of their community directly affected student success.

As a result of this study, I learned that students considered developmental courses to be beneficial. However, their experiences allow us, as leaders in higher education, to consider how we can provide a system of equitable and ethical service for all students, regardless of their level of preparedness. Further, it is hoped that the findings of this study can be used to inform decision-making by leaders in both secondary and postsecondary education to recognize and address issues surrounding developmental education programs.

Implications

Study participants provided descriptive accounts of their experiences in developmental education. Thus, the findings of this research have specific implications for practice, policy, and research.

Study findings demonstrated that students' psychological behavior played a vital role in their ability to persist. However, the positive behaviors of motivation, determination, perseverance, and confidence were a result of mostly external sources. The internal support from the college via faculty and academic support systems clearly left students feeling that there were insufficient resources to address their needs. Counseling strategies should be implemented to communicate to students the benefits of developing a college-level foundation. Instructional strategies that lead to greater engagement of students in both the classroom and on campus can assist students and instructors in building relationships that will promote a safe environment for students to share thoughts and ideas. These relationships may subsequently improve student performance. In addition, learning communities either within a student's major or in the developmental education program might strengthen student commitment to pursue educational goals.

Additional resources should be devoted to fully-staffed learning centers, math labs, and writing labs. Adequately staffed learning centers and labs could provide a level of support that is essential for student success. These centers and labs could utilize trained volunteers from the student population, retired alumni, or individuals in the community. Learning centers and labs should be housed in close proximity to academic buildings in which developmental courses are taught. These objectives could complement the online tutorial system, as resources permit.

Future Research

There are a number of future research studies that could be derived from the findings of this current investigation. Study findings suggested that faculty and administrators at the college in this study had some degree of influence on student persistence in developmental education. Although the study was completed at a multicampus institution, the overall sample size could have been larger. I would recommend that this study be replicated with a larger sample size at either a single community college campus or a multi-site campus. Because of the sample size, and the nature of qualitative research, it is not recommended that the findings be generalized to a larger population. However, a larger sample size would certainly provide a much richer description of

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student persistence in developmental course work. These results would contribute to the transferability of findings to the broader population of community college students. Additional research studies are needed to develop a deeper understanding of the instructional practices that are most effective for unprepared and underprepared students as they transition from high school to postsecondary education.

Conclusion

This research study was conducted to identify barriers and facilitators for students as they persisted through developmental education courses. While it is impossible to identify all of the challenges that students may face in pursuing developmental and college-level course work, it is clear that faculty members and administrators of community colleges can play a major role in helping students persist. As we look at the future of those who will be the driving force of our economy, we can no longer provide a college education that barely meets the needs of those who are academically underprepared.

Increasing the number of first-time, full-time students in community colleges means admitting more students who are academically underprepared for college-level course work. For these students to earn certificates and degrees, they must first complete sequences of developmental course work designed specifically to strengthen their academic skills before progressing into college-level courses. Without developmental education courses, many students will be excluded from the opportunity to obtain a college credential. The results of this research indicate that students who are successful in developmental course work can be successful in college-level course work when positive facilitators of motivation and academic integration are engaged.

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If the long-term educational goals of academically underprepared students are to be met, institutions must continue to provide appropriate academic and social supports and initiatives that promote student retention. It is important that recent high school graduates have the opportunity to pursue their academic and career goals. Therefore, it is critical that society continues to promote access and success to ensure that its students have the opportunity to achieve the American dream.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD LETTER OF APPROVAL



Institutional Review Board for Human Use

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 January 24, 2017. The UAB IRBs are also in compliance with 21 CFR Parts 50 and 56.

Principal Investigator:	OWENS, LILLIAN Y
Co-Investigator(s):	
Protocol Number:	E140801008
Protocol Title:	Exploring Perceptions of Academically Underprepared Students at a Southeastern Community College

The above project was reviewed on 91744. The review was conducted in accordance with UAB's Assurance of Compliance approved by the Department of Health and Human Services. This project qualifies as an exemption as defined in 45CF46.101, paragraph

This project received EXEMPT review.								
IRB Approval Date:	9	17	14					

Date	IRB	Approval	Issued:	9	17	14

Cari Oliver Assistant Director, Office of the Institutional Review Board for Human Use (IRB)

Investigators please note:

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.

470 Administration Building 701 20th Street South 205.934.3789 Fax 205.934.1301 irb@uab.edu The University of Alabama at Birmingham Mailing Address: AB 470 1720 2ND AVE S BIRMINGHAM AL 35294-0104

APPENDIX B

LETTER OF PERMISSION FROM JEFFERSON STATE COMMUNITY COLLEGE

VICE PRESIDENT



 2601 Carson Road – Birmingham, Alabama 35215

 Phone (205) 856-7885
 Fax (205) 856-6058

 E-mail jmorris@jeffstateonline.com

Vice-President

December 5, 2013

To Whom It May Concern:

I understand that Lillian Y. Owens is conducting doctoral research on "Exploring Perceptions of Academically Underprepared Students at a Southeastern Community College". I further understand that this study aims to understand the experiences and perceptions of college students. I grant permission to Lillian Owens to conduct her research at Jefferson State Community College. The student involvement in this study is purely voluntary based on his/her willingness to participate. She will be able to use historical data pulled by our IT staff from the Banner system and the CAPPS and/or DegreeWorks audit systems. She will be provided information about first-time, full-time students who enroll in a developmental English and math courses at Jefferson State Community College for the fall of 2011 and 2012.

If you have questions, please do not hesitate to contact me at <u>imorris@jeffstateonline.com</u> or call me at 205-856-7761. I look forward to hearing the results from the research.

Sincerely,

Joe mor

Joe Morris Vice-President



APPENDIX C

LETTER OF PERMISSION FROM JEFFERSON STATE COMMUNITY COLLEGE DEAN OF ENROLLMENT SERVICES/UNIVERSITY REGISTRAR



2601 Carson Road—Birmingham, Alabama 35215 Phone (205) 856-7704 Fax (205) 856-6070 E-mail: help@jeffstateonline.com

Enrollment Services

August 21, 2014

To Whom It May Concern:

I understand that Lillian Y. Owens is conducting doctoral research on "Exploring Perceptions of Academically Underprepared Students at a Southeastern Community College." I further understand that this study aims to understand the experiences and perceptions of college students. I grant permission to Lillian Owens to conduct her research at Jefferson State Community College. The student involvement in this study is purely voluntary based on his/her willingness to participate. She will be able to use historical data pulled by our IT staff from the Banner system and the CAPPS and/or DegreeWorks audit systems. She will be provided information about first-time, full-time students who enroll in a developmental English and math courses at Jefferson State Community College for the fall of 2011 and 2012.

If you have questions, please do not hesitate to contact me at <u>mhobbs@jeffstateonline.com</u> or call me at (205) 856-7991. I look forward to the hearing the results from the research.

Sincerely,

Mike Hobos

Mike Hobbs Dean of Enrollment Services/Registrar Jefferson State Community College 2601 Carson Road Birmingham, Alabama 35215 Fax: (205) 856-6011



APPENDIX D

INTERVIEW PROTOCOL

Central question: What does it mean to underprepared students to be successful in developmental course work at a community college?

Part I: Background/demographic information

- 1. Gender: ____Female ____Male
- 2. Age: _____ years
- 3. Year graduated from high school? _____
- 4. 4. Race/ethnicity:
- 5. Math course presently enrolled in: _____
- 6. English course presently enrolled in:
- 7. What is your major and degree program?

Part II

- 1. What are the motivating factors behind your pursuit of a college degree?
- 2. What does academic success look like to you?
- 3. How have you been able to overcome these challenges and successfully persist through the developmental math courses?
- 4. How did you feel when you learned that you would be required to complete developmental course work?
- 5. What are some of the benefits that you perceive of participating in developmental courses?

How do you see developmental courses supporting your long-term educational goals?

- 6. Specifically what do your instructors do that helps you to meet your educational goals?
- 7. How have your perceptions about your academic abilities changed as a result of participation in developmental course work?
- 8. What, if anything, do you dislike about taking developmental courses?
- 9. What, if anything, do you wish the college or developmental course instructor would do to better support you?
- 10. Do you feel that the development courses prepared you for success in your college-level courses?
- 11. Did you form any friendships in your developmental courses?
- 12. Did you join any study groups while taking developmental courses?
- 13. What are your major challenges in your developmental course work (math)?
- 14. What are your major challenges in your developmental course work (English)?
- 15. Have you ever received Financial Aid?

APPENDIX E

PARTICIPANT RECRUITMENT LETTER

Dear student name;

Title of the study: Exploring Perceptions of Academically Underprepared Students at a Southeastern Community College

My name is Lillian Owens and I am a doctoral candidate in the Educational Leadership Department at the University of Alabama at Birmingham in Birmingham, Alabama. I am conducting a research study as part of the requirements of my degree in Educational Leadership. I have been given permission by the Jefferson State Community College Administration to conduct my study at Jefferson State. I would like to invite you to participate with other students from the college who have also been selected for this study.

The purpose of my study is to understand the experiences of community college students who place into remedial/developmental courses and successfully persist to college-level courses. Many students arrive at community college unprepared to take college-level courses. These students are required to take developmental courses. Through my research, I hope to provide an understanding of the experiences of these students and highlight the factors that help them to successfully move from remedial to college-level course work. The study research will involve 12 community college students. The interview time for each student is approximately 90 minutes. The interviews will take .place at Jefferson State Community College at the campus most convenient for you primarily from September 2014 to January 2015.

If you decide to participate, you will be asked questions about your experiences as you moved successfully from remedial education courses to college-level courses. The interview session will be audio taped and later transcribed (typed out) by the researchers. Once the recordings have been transcribed and checked for accuracy, you will be given a copy of the transcription in order to clarify and elaborate on the information shared in the interview. The written files will be saved under a pseudonym (fake name) so that your words cannot be traced back to you in presentations or publications which may result from this study. All audio tapes and transcripts will be placed in a secure cabinet in the researcher's locked office in James Allen Library at Jefferson State Community College.

Your participation in this study is entirely voluntary and all of your responses will be kept confidential. Please be assured that your responses will remain strictly confidential and you are free to withdraw from this research study at any time. Your choice to leave the study will not affect your relationship with this institution. You may choose not to participate and you may discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled. You are free to withdraw from this research study at any time. Your choice to leave the study will not affect your relationship with this institution.

I will be happy to answer any questions you have about the study. You may contact me at

205-903-8728; <u>lowens@jeffstateonline.com</u> or my faculty advisor, (Dr. Loucrecia Collins (205 205-975-1984 and <u>lcollins@uab.edu</u>. If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the UAB Office of the IRB (OIRB) at (205) 934-3789 or toll free at 1-855-860-3789. Regular hours for the OIRB are 8:00 a.m. to 5:00 p.m. CT, Monday through Friday. You may also call this number in the event the research staff cannot be reached or you wish to talk to someone else.

Thank you for your consideration. If you would like to participate, please contact me at the number listed below or email me to discuss participating. I will contact you within the next week to see whether you are willing to participate.

With kind regards,

Lillian Y. Owens Jefferson State Community College 2601 Carson Road Birmingham, Alabama 205-903-8728 <u>lowens@jeffstateonline.com</u>