Developmental education programs: students' perceptions of the effectiveness at the community college level

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DEVELOPMENTAL EDUCATION PROGRAMS: STUDENTS’ PERCEPTIONS OF THE EFFECTIVENESS AT THE COMMUNITY COLLEGE LEVEL

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy in The Department of Educational Leadership, Research, and Counseling

by

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Sincerely,

Thad D. Mitchell
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ABSTRACT

Developmental education and the surrounding issues of academically underprepared students have been an ongoing source of debate within American higher education. While secondary education systems are frequently blamed for failing to adequately prepare students, community colleges, state colleges, and universities offer developmental programs to aid students in need of remediation in the form of developmental courses. Reading, Math, and English are subjects that are often taught on a developmental level. These courses are designed to provide students with the basic skills needed to be successful in higher education.

This research was designed to examine students’ perception of the effectiveness of developmental education programs in a community college setting in Louisiana. The data was collected through a qualitative study using student surveys and interviews. For this study, effectiveness was defined in two ways: in evaluating students’ perception of whether the developmental courses taken address their deficiencies in each developmental course subject and through comparison of components of developmental programs to established indicators that facilitate developmental program success.

Theoretical framework for the study drew on Baxter Magolda’s Epistemological Reflection Model. This study contributes to the discussion of effective developmental education pedagogy and the development of programs that enhance underprepared students’ transitional development into a postsecondary educational setting.
CHAPTER 1
INTRODUCTION

The student population of community colleges is diverse, and it is difficult to disaggregate the effects of community colleges from the characteristics of students who can enter them (Cohen & Brawer, 2008). The students that enter higher education at the community college level, when compared to students entering at a university level, are generally from a lower socioeconomic class and have lower academic ability. In addition, the students are more likely to be first-generation status, enrolled part-time, married, and possibly parents. Community college goals for these students include:

- Entering college
- Enrolling in transfer-credit courses
- Persisting in any courses
- Complete a vocational training program
- Complete an associate degree program
- Transferring to the university at any point
- Transferring to the university at the junior level (Cohen & Brawer, 2008).

Approximately 40% of traditional students will be required to partake in at least one developmental course during their undergraduate curriculum (Woodham, 1998). Students are only permitted to complete their intended program of study after successfully passing required developmental coursework; however, those who fail to pass remediation coursework must resolve to bear the cost of retaking the course or pursue other interests, such as vocational/career training or entering the workforce. Developmental education is the gateway to postsecondary education.
Louisiana is of particular focus of this study due to the current reorganization of higher education in the state. These changes include building stronger vocational education programs at technical and community colleges (Master Plan, 2011). University systems such as the Louisiana State University System and the University of Louisiana System governed Louisiana technical and community colleges until 1999, when the Louisiana Community and Technical College System was created (About LCTCS, 2012). This new system allowed for new technical schools and community colleges to be created and enrollment grew rapidly. This also allowed Louisiana universities to increase admission standards by passing the responsibility of providing remedial or developmental education to community colleges with open admission. The Board of Regents of Louisiana currently plans to eliminate all developmental education from four-year universities by 2014 (Master Plan, 2011). In the fall of 2010, 16% of first-time freshmen at four-year universities were enrolled in one or more developmental courses (Board of Regents, 2011). In contrast, 72% of first-time freshmen in two-year colleges were registered in one or more developmental courses. These statistics indicate that Louisiana students who need developmental course are primarily attending two-year colleges to address their educational needs, and by 2014 all students who need developmental courses will be required to attend a two-year college before transferring to a four-year university (Master Plan, 2011). The current Louisiana transfer/retention rates of two-year college students to four-year universities are low (Board of Regents, 2011). In the fall of 2010, 4.7% of four-year university freshmen transferred from two-year colleges. This data reflects a significant trend in the effectiveness of developmental education programs in Louisiana and illustrates the need for evaluation and research in the area of developmental education in Louisiana.
Higher Education in Louisiana

Louisiana’s Board of Regents 2011 data illustrates that 36% of first-time freshman are enrolled in one or more developmental courses (Board of Regents, 2011). At four-year institutions in Louisiana, 16% of first-time freshmen are enrolled in developmental courses; at two-year institutions, this number increases to 72%. According to American College Testing (ACT) results in 2011, merely 16% of Louisiana’s college-bound students met all four of College Readiness Benchmark Scores, which evaluate skills in English, Math, Reading, and Science. The national average College Readiness Benchmark Score is 25% (ACT Profile Report, 2011). According to these findings, 84% of first-year students in Louisiana are unprepared for college coursework in English, Math, Reading, or Science. Louisiana state guidelines effective in the fall of 2012, state that any student who fails to obtain a minimum ACT score of 18 in English and 19 in Math will be required to enroll in developmental coursework (Minimum Admission, 2011).

The Louisiana Community and Technical College System (LCTCS) was created in 1999 (About LCTCS, 2012). Compared nationally, this is an especially young system. Illinois, Texas, California, and Mississippi all started systems of “junior colleges” in the early part of the 20th century. Despite the youth of the Louisiana system, it has seen a constant growth in student enrollment. The total number of students enrolled in LCTCS has increased from 58,454 in the spring of 2009 to 67,862 the spring of 2010 (News & Media, 2010).

As a result of the desegregation case United States versus Louisiana, the Consent Decree in 1981 established a mandate that created Baton Rouge Community College (Race Equity and Diversity, 2004). Both the Louisiana State University and Southern Systems were selected to govern Baton Rouge Community College (BRCC). This structure would allow developmental
education to be moved from the four-year institutions to the community college level. In
addition to this ruling, the Louisiana Board of Regents implemented an admission policy aimed
at raising academic standards at four-year institutions by calling for an elimination or reduction
of developmental courses (Louisiana Public University Minimum Admissions Criteria, 2011).

Louisiana four-year institutions that have successfully eliminated developmental courses include
Louisiana State University (LSU) and Nicholls State University (Board of Regents, 2011). As a
flagship institution, LSU relocated its developmental courses to local community colleges in
1999 (Board of Regents, 2011). Other four-year institutions have not yet eliminated
developmental courses, but are attempting to be more selective by admitting students who
require only one developmental course, rather than multiple remediation courses.

While transferring developmental responsibility to community colleges does effectively
give students the opportunity to access a postsecondary education typically with economical
tuition and smaller classes, it also creates additional issues. The Board of Regents addressed the
issue of two-year college student transfer to four-year institutions in 2009 with a plan that
suggests:

The Board of Regents will work with the four postsecondary systems to develop a
comprehensive articulation policy to encourage persistence, facilitate transfer, and
generate greater success at every level. The policy will be designed to promote
transfer student progression and encourage institutions to develop initiatives to
push baccalaureate-seeking students to the university, especially upon completion
of a degree or certificate, and to pull them from the community colleges into
baccalaureate programs. Push/pull efforts may include new policies on transfer
articulation, statewide incentives for students to complete a credential before
transferring, and support to strengthen transfer orientation programs (Master Plan,
2009).

In 2010, BRCC and LSU created the “Bears 2 Tigers” academic partnership
(Ballard, 2010). This partnership marked the first step of implementation of the Board of
Regents’ Master Plan. This agreement creates an easier articulation process for students
who want to pursue a bachelor’s degree at LSU after gaining an associate’s degree from BRCC. The Louisiana Transfer Degree Guarantee, implemented in 2010, created an associate degree curriculum in which sixty credit hours are transferred from the community college to four-year institutions upon completion (Louisiana Transfer Degree Guarantee, 2010). This program was designed to provide clear guidelines for students attempting to transfer between educational institutions in Louisiana.

**Purpose of the Study**

The purpose of this qualitative research study was to assess students’ perception of the effectiveness of a developmental education program at a community college in Louisiana. Effectiveness was defined as students’ perception of the benefit of developmental coursework in meeting addressing their deficiencies in the subject matter. Literature-based developmental education components which include central program organizational structure, mandatory assessment of students, mandatory placement of students, tutor training, advising/counseling services, and program evaluation, were investigated for student perceptions of the benefits of a developmental education program (Boylan et al., 1997). This further defined effectiveness of a developmental education program by comparing program components to established indicators of developmental program success.

Developmental education is a philosophy that takes the research from postsecondary student development and applies it to students who need improvement in academic competence (Higbee, 2012). The ultimate goal is the development of the whole student and the creation of well-rounded students prepared for college coursework as lifelong learners. The idea of developmental education is different from remedial education, which strictly focuses on academic deficiencies. Developmental education in Louisiana is currently undergoing a
transition in which technical and community colleges are encompassing an expanded role in higher education by providing developmental education to all underprepared students (Master Plan, 2011). This transition, in conjunction with statistical data reflecting low retention and transfer rates from two-year to four-year institutions in Louisiana, illustrates the need for an evaluation of developmental education programs in this setting (Board of Regents, 2011).

By researching the perceived effectiveness of a developmental education program at a community college in Louisiana, the researcher aims to illustrate developmental education from the perspective of the students. Effectiveness will further be delineated through comparing key components of a successful developmental education program as developed by Boylan et al. (1997). This study will evaluate the ability of a developmental education program at a community college in Louisiana to meet the needs of the developmental education students through addressing academic deficiencies as well as meeting the component of a successful developmental education program.

Over the last decade, developmental coursework has been an ongoing source of debate within the higher education community (Kozercakki, 2002; Soliday, 2002). One opinion suggests that students enrolled in developmental courses are not sufficiently competent in academia to be admitted into college (Harwood, 1997; Marcus, 2000; Trombley, 1998). This perspective argues that by admitting developmental students, four-year institutions diminish their academic standards to enable these students to advance through college (Bennett, 1994; Traub, 1995). In addition, these opinions argue that developmental classes significantly overwhelm students on the developmental level. Given that these classes do not award credit toward a program of study, the likelihood of abandoning any academic pursuit increases (Deil-Amen & Rosenbaum, 2002; Rosenbaum, 2001). For these reasons, many researchers suggest that developmental education
be eliminated from four-year institutions, so that the students can be better served at the community college level. Others argue that developmental education is essential to insuring that access to higher education remains open. Those with this view see developmental education as providing an opportunity for minority students and students from low-socioeconomic status (Deil-Amen & Rosenbaum, 2002; Rosenbaum, 2001). Developmental education is an important access point for many students, and is of the utmost importance that these programs be effective.

Students that begin their higher education at two-year institutions but state that their desire is to obtain a bachelor’s degree, are less likely to reach that goal than students who begin at four-year institutions (Choy, 2002). Students beginning their college careers at a two-year college were found to be 15% less likely to earn a bachelor’s degree when compared to student enrolled in a four-year university (Pascarella & Terenzini, 2005). Regardless of the fact that retention and transfer rates are low, community colleges in Louisiana are preparing to play a growing role in higher education (Master Plan, 2011).

When examining the faculty of community colleges, Cohen and Brawer (2008) explains that they are different from instructors of any other type of school. Compared to a university, the proportion of men is lower; however, that proportion is higher than secondary schools. Most of the faculty holds a master’s degree (some lack a master’s degree but have work experience in their teaching field), but they are less likely to have advanced degrees. They conduct little research and their primary responsibility is to teach. A full-time instructor will teach up to five classes in a term; over half of the faculty are part-time and teach one or two classes. Community colleges depend heavily on part-time instructors, and approximately 63% of the faculty is part-time. Many of full-time and part-time community college instructors hold other jobs in order to earn additional income. This data suggests that community college instructors have larger
workloads regarding the number of classes taught. This information also explains that while instructors may hold advanced degrees in their subject field, they lack teacher education training.

**Components of Developmental Education**

According to Boylan et al. (1997), six distinct components have been discovered as the foundation of student success in developmental education programs. These six components are a centralized program organizational structure, mandatory assessment of students, mandatory placement of students, tutor training, advising/counseling services, and program evaluation (Figure 1.1). A centralized program organizational structure refers to the use of a core education department through which all developmental courses and services are operated. The use of a centralized organizational structure rather than a decentralized structure has been linked to increased student retention. Mandatory assessment refers to the required testing of incoming students to an institution. This is considered in conjunction with mandatory placement, in which students are placed in developmental courses based on the results of mandatory assessment.

While mandatory assessment positively influences student success, both mandatory assessment and placement have been shown to negatively affect retention (Boylan et al., 1997). Tutor training is based in the idea that optimal tutoring services begins with training of the tutors. Developmental programs that offer tutor training as a component of the tutoring service have resulted in higher student passage rates and grade point averages. The inclusion of advising and counseling services within an institution has also been linked to improved course passage rates among students. The component of program evaluation is confidently related to student retention at two-year institutions in addition to success in developmental courses. Engaging in evaluation may assist program staff in monitoring and improving performance in those components that provide direct services to students. The research suggests that without such
systematic components, it is impossible to determine how successful developmental courses or activities may be. The six key components of Boylan et al. provide a framework for comparison and evaluation of the component implementation in a community college in Louisiana.

Figure 1.1 Components of a Developmental Education Program

**Research Questions**

1. How do students in a developmental education program at the community college level perceive the effectiveness of the program?

2. Which developmental education components are perceived by students and as most beneficial to success and development of knowledge and skills needed to successfully attain academic goals?
Limitations

Remediation is a personal topic for this researcher. The researcher completed developmental courses as an entrance requirement into a four-year regional institution in Louisiana. The researcher participated in developmental Reading and English courses his first semester of college in the fall of 1995. Despite not receiving credit toward his program of study, the researcher graduated in December of 1999. Having participated in developmental classes, the researcher recognizes that biases exist based on his personal experience; however, the developmental program that is part of this research examines the community college setting rather than a four-year institution.

The researcher also recognizes that the results of this study may or may not be applicable to other community colleges in other states or regions. The results can, however, be applied to the community college that participated in the study. In addition, the results may or may not be applicable to four-year universities that offer developmental courses.

Definition of Terms

Community College—A post-secondary institution that provides developmental education, associate degrees, and vocational certifications.

Technical Community College—A post-secondary institution that traditionally provides developmental education and vocational training but is expanding to provide associate degrees.

Matriculation—Progression through a program of study, in the context of transition from community college to a university.

Developmental Education—Education that is required of students who are deemed not ready for post-secondary coursework by results of entry exams.
**University**—A four-year post-secondary institution of education that provides programs of studies that reward bachelors, master, and doctorate degrees.

**Vocational Education**—Education in which students are taught a skill or trade for employment in a specific career field.

**Meritocracy**—The philosophy or belief that through hard work and dedication anything can be achieved.

**Political Economy**—The current rational for creating new policies and social trends.
CHAPTER 2
LITERATURE REVIEW

Introduction

There exists a plethora of literature providing background on the subject of post-secondary developmental education. The literature research of Fike and Fike (2008), Sheldon and Durdella (2010), Merisotis and Phipps (2000), Shaw (1997), Boylan et al. (1997), Attewell, Lavin, Domina, and Levey (2006), and Clark (2008) provide the foundation for the proposed research. American ideology and the development of meritocracy and democracy will first be discussed. The history of community college systems in use throughout the United States, with a specific emphasis on Louisiana, will then be assessed. Next, the definitions of remediation and developmental education as it relates to higher education will be established. Current research will then be detailed regarding contemporary issues surrounding community colleges and developmental education. Recent views regarding the location of developmental education will be illustrated, as well as student success and diversity. Limiting access will be explored, especially as it relates to developmental education policy. The cost of remediation and its effect on academic standards will additionally be investigated. Transfer and retention, as well as student integration and involvement will be reviewed. Finally, Baxter Magolda’s Epistemological Reflection Model (1992) will be acknowledged in order to provide a lens through which the researcher will examine student perception of mandatory participation in developmental education.

American Ideology and Education

Meritocracy and democracy are ideals uniquely intertwined in the American education system (Somerville & Santoni, 1963). The philosophy of meritocracy attempts to create an unbiased system in which the best and brightest are rewarded access to resources of
achievement. When applied to college access meritocracy is basis of college entrance exams. Students with high test scores are rewarded with access to higher education and the luxury of choosing a university setting. American ideology also highly values a democratic ideal that grants everyone an opportunity to achieve goals through hard work and dedication. Students wishing to gain access to higher education but fail based on past academic performance are given the opportunity to prove themselves. This is where community colleges fit into the hierarchy of higher education. In order to protect meritocracy and ensure that only best and brightest are allowed into the universities, community colleges provide democratic open admission policies that grant access to all. The community college proves developmental courses and vocational training. Once a student has worked hard and completed coursework, the student is then granted access to universities to continue their studies. Students who score high on admissions test are granted immediate access to universities and give more academic choices. Students who do not perform well on admissions test must first deem themselves worth of access to a university by achieving success at a community college. This system protects meritocracy while also accommodating democratic American ideology.

In their book, *Ethics*, Dewey and Tufts define democracy as, “a moral ideal is thus an endeavor to unite two ideas which have historically often worked antagonistically: liberation of individuals on one hand and promotion of a common good on the other (Somerville & Santoni, 1963, p.498).” Thomas Jefferson believed a “natural aristocracy” would be created to protect the common good. He wrote in a letter to John Adams, “…For I agree with you there is a natural aristocracy among men. The grounds for this is virtue and talents…There is also an artificial aristocracy, founded on wealth and birth, without either virtue or talents; for with these it would
belong to the first class. The natural aristocracy I consider as the most precious gift of nature, for the instruction, the trusts, and government of society (Somerville & Santoni, 1963, p. 266).”

Michael Young, an English sociologist, first coined the term “meritocracy” in his 1958 essay entitled The Rise of Meritocracy (Young, 1958). Young intended his essay to be a satirical novel and he believed that meritocracy is truly classism (Fox, 2002). Young expressed the idea that individual merit should replace nepotism, bribery, and inheritance.

Early universities served as an instrument used to create an elitist class designed to be leaders of the new republic, the United States (Thelin, 2004). Of early admissions requirements, Thelin states that a lack of consistent primary and secondary education resulted in loose admissions standards and the provision of basic education to ensure continued revenue for a college. Upper class males were allowed entrance into universities due to their class status. If a student failed to meet the admissions requirements, they would gain access to higher education on the basis of social status alone; they were provided developmental education based on their educational background.

Developmental education courses were taught throughout the eighteenth century as higher education spread throughout the country (Thelin, 2004). Important events in American history provided students increased access to higher education, such as women’s enrollment, the First and Second Morrill Acts, and the enrollment of African Americans. The American Civil War provided an important turning point in the advancement of women. Barbara Solomon (1985) explains that the Civil War enabled women to transition from a domestic life to part of a labor force. In particular, Reconstruction fostered the placement of women in educational institutions as both students and teachers. Women took advantage of remediation to gain access
into higher education, and as teachers they played a vital role in preparing students for post-secondary education.

Another important event in the nineteenth century was the passage of the First and Second Morrill Acts. These acts expanded access to higher education by establishing Land Grant Colleges (Rudolph, 1962). The Second Morrill Act established black land-grant colleges. James Anderson (1988) explains that in the South, the post Reconstruction era education system consisted of primarily private liberal arts colleges. Between 1870 and 1890, federal funding established nine black land-grant colleges in the South. By 1915, sixteen such schools existed. Anderson also points out that only one of these colleges provided college level instruction. Remediation and developmental education were large components of the black-land grant colleges, particularly in the South. Lack of funding for the newly develop K-12 public school system increased the need for remediation in both types of land-grant colleges. Developmental education in higher education was a typical part of the college curriculum and was not disputed until the twentieth century.

In the twentieth century, higher education saw an explosion in enrollment. The increasing demand for the college experience led to the creation of the community college (Thelin, 2004). By 1920, the Association of Junior Colleges, later known as the American Association of Community Colleges, was formed (Higher Education in America, 2006). At their conception, these post-secondary two-year institutions had the primary purpose of providing remedial education and the first two-year of college coursework. This would culminate with the awarding of an associate degree, and allowed students to matriculate to four-year institutions. American higher education saw a dramatic increase in demand in the early 1900’s, especially with the GI Bill, which provided financial assistance to veterans returning from war. With the
creation of selective admissions policies at four-year institutions, more students chose to enroll in community colleges for remediation and entry to higher education. These selective admission policies were created for administrators to manage rising numbers of applicants, which also afforded them the luxury of determining the size and social composition of the student body. In this sense, administrators became the gatekeepers to the college.

During the 1950’s and 60’s, the Supreme Court case *Brown versus The Board of Education Topeka, Kansas*, the civil rights movement, and affirmative action all led to an extraordinary increase in college enrollment (Greenblatt, et al, 2006; Brunner, 2007). As these new students applied for admissions, additional remedial education was needed to accommodate the new students (Thelin, 2004; Lucas, 1994). The new open-access policies allowed increased opportunities for disadvantaged student (Richardson, 2005). In the 1980’s, a call for higher standards began to move across the higher education. Clark (2008) explains:

> The conflict between open-door admission and performance of high quality often means a wide discrepancy between the hopes of entering students and the means of their realization. Students who pursue ends for which a college education is required but who have little academic ability gain admissions into colleges only to encounter standards of performance they cannot meet. As a result, while some students of low promise are successful, for large numbers failure is inevitable and structured (p. 10).

Throughout the 1980s and 1990s, the debate over increasing academic standards and limiting access continued. Lucas (1994) found opposing views of education. One such view featured an elitist line of thought rooted in meritocracy where only the selected few would be admitted. This maintained an idea that higher education was a privilege of few. The alternative deemed education as open to all. This view focused on allowing all to strive for higher education but preserved institutional standards of academic success.

Laura Rendon (1997) explains that two dichotomies exist when examining access to higher education in America. Rendon identifies one side as preserving individualism in a
“…color-blind, meritocratic view that emphasized individual freedom to succeed or fail under universally agreed standards of merit” while another perspective “…is a collectivist view formulated around the sharing of wealth and power (p.57).” These two ideas on admissions policies, one based on merit and the other on social justice, are competing to allocate higher education and define a contemporary American college student body. It should be noted that both philosophies consider their purpose as ultimately pursuing justice and fairness. Education is at the forefront of the battle between these two worldviews, as seen in the debate over access and admissions.

The admissions policies of many colleges focus on an index that assesses students’ qualifications. The ACT is one examination that high school students can take in order to gain entrance into college based on their achieved score. According to Louisiana State University’s admissions requirements (2011), “Preference for admission to LSU will be given to those students whose credentials indicate the greatest promise of academic success. Admission decisions are based, in part, upon meeting the needs and capacity requirements of LSU” (Para. 3). Academic success in this case is defined by two primary factors. The first is a grade point average of at least 3.0 in a college-preparatory curriculum; the second is a composite ACT score of 22. This policy clearly rewards merit, and states as much in the admissions policy. This conflict between meritocracy and democracy is illustrated in ACT data collected in 2011, which shows that the average score for Caucasian students in Louisiana is 22 (ACT Profile Report, 2011). This means that the average Caucasian student can gain access to a Louisiana university. The average score for African American students is 17.8 which translates to the majority of African American students will gain access to higher education through community colleges. The current average ACT score for Louisiana high school students is 20.7. In LSU’s flagship
agenda, one stated goal is to increase campus diversity (LSU Flagship Agenda, 2006). Is LSU committed to this goal of diversity at the cost of other stated goals? This question represents one of the social dilemmas created by such policies that are meritocratic, while simultaneously attempt to be democratic. To accommodate this dilemma, community colleges are experiencing an expanded role which is providing an important access point to higher education in Louisiana for students who are deemed unprepared for college coursework.

There have been a number of policies that have been developed with the goal of making access more democratic. According to Laura I. Rendon (1994):

Democratic access ensures that all students, regardless of social background, race/ethnicity or gender, are provided a fair and equal opportunity to graduate from high school, enter college of their choice, graduate from college, and enter the graduate or professional program of their choice (p.64).

Oberlin College, founded in 1833, was a pioneer in creating an admissions policy that did not discriminate against women or people of color (Thelin, 2004). This case is of interest due to the historical context in which it is surrounded. The implementation of this progressive Oberlin College policy occurred thirty-years before The American Civil War and the end of slavery, and even longer before women achieved suffrage.

Furthering the move to democratic access, Teddie and Freeman note that the first endeavor of the American government toward equal treatment of African Americans was to provide education (2002). This education was to be “separate but equal” as defined by the Supreme Court Case Plessey v. Ferguson in 1896. This attempt failed in general, but provided for the establishment of Historically Black Colleges and Universities. The advantage of this policy, the provision of some type of education for African Americans, was utterly overshadowed by the blatant truth that education was separate, but by no means equal.
The *Brown* case provided another milestone for the advancement of a more democratic higher education system (Alger, 2003). Albert L. Samuels (2004), explains, “In time, it laid the groundwork for the expansion of antidiscrimination principle to include gender, religion, national origin, sexual orientation, age, and disability--- the so called rights revolution (p. 11).” With this court decision, America faced the challenge of desegregating higher education. Applying *Brown* to higher education was not an unproblematic undertaking and was met with furious protest, particularly in the South. Additional legislation was passed expedite the desegregation of schools.

Two major legislations of the 1960s, “affirmative action” of 1961 and the Higher Education Act of 1965, were passed in order to demonstrate the government’s commitment to providing financial support to lower and middle-income students, while also ensuring that minorities were given access to higher education (Samuels, 2004). As student populations increased as a result of open-admission policies, institutions began to investigate the problem of the underprepared student. While becoming more democratic in terms of providing equal access to higher education, the meritocratic tradition that existed in American society created a conflict with new policies. These new policies provided access to higher education, the backlash they created called for higher standards to be implemented.

Rendon (1997) argues that merit definitions focus on admittance into college and ignore educational deficiencies and the need to foster ongoing student success. Merit can be seen as a competitive test of survival. Rendon emphasizes that merit definitions disregard student potential and do not benefit the majority. Clark (2008) rebuttals with the idea that competence allows selection of worthy individuals who are deemed more proficient in educational pursuits.
The contradicting ideals of meritocracy and democracy, as they related to college admissions, continue to pull policies in opposing directions. One seeks to fulfill the mission of creating diversity, while the other seeks to preserve institutional prestige. Community colleges were created as a means of accommodating these two conflicting ideals by providing an open admission policy for all students seeking postsecondary education. This also protects the prestige of universities by allows adherence to higher admissions standards at such universities while shifting the educational responsibility for underprepared students to the community college setting.

**Education and Community College Development**

Developmental education has been a part of American higher education since its colonial era beginnings (Thelin, 2004). The expansion of education beyond the traditional elite focus to reach women and minorities prompted an increased need for developmental education. Thelin (2004) notes that Ivy League institutions provided developmental education for students due to lack of available standard primary or secondary education. Colleges provided this service to raise money and to create cohorts of students. It is important to note that during this era, the student population consisted of only upper class white males. Developmental courses continued to be taught throughout eighteenth century as higher education spread throughout the country (Thelin, 2004). Important events in American history such as women’s enrollment, the First and Second Morrill Acts, and the enrollment of African Americans, provided students increased access to higher education.

In the hierarchy of higher education, community colleges hold an important position (Cohen & Brawer, 2008). They provide an access point for a variety of students. Community colleges are economical and provide quality education, which make them attractive to student
with diverse backgrounds. The American community college began in the twentieth century in response to an increased need for trained workers. The rapid growth of these institutions is also attributed to social movements that demanded greater access to post-secondary education. It is predicated that enrollment at community college will continue to grow and exceed 6.3 million students by 2012 (Gerald & Hussar, 2002).

**Louisiana Community Colleges**

The community college system in Louisiana was originally set up to be administered by the university systems; however, due to the loss of revenue from the “oil bust” in the 1980s, higher education underwent a major reorganization in order to operate more effectively (About LCTCS, 2012). Throughout the 1980s and 1990s, Louisiana governors tried to establish a single board of higher education. The most recent effort to form this board occurred in the form of a constitutional amendment proposed by Governor Foster in 1996; however, this amendment failed due to lack of support. Government officials believed that Louisiana had too many institutions to be effectively governed in a single system. After this defeat, Governor Foster commissioned a group of educational advisors to examine the current system of Higher Education. This group concluded that the current Board of Regents and the three university systems were adequate, and that improvements could be made to the current system without another attempt for a constitutional amendment.

Governor Foster's next initiative was to create another higher education board that would establish training for people who did not intend to go to a university for four years and for people who wanted workforce training (About LCTCS, 2012). The Legislature supported the initiative by passage of ACT 151 and ACT 170 during the First Extraordinary Session of 1998. The voters of the state overwhelmingly approved the
establishment of a separate board of the community colleges and the technical college campuses -- The Louisiana Community and Technical College System Board of Supervisors. This board became operational in May 1999, and brought together five community colleges that were under the University of Louisiana System and one under the Louisiana State University and Southern University Joint Management Board. It also took the reins of Louisiana Technical College, which operates 42 campuses across the state, from the Board of Elementary and Secondary Education.

Delgado is the oldest and largest community college in the state of Louisiana (History, 2008). The campus and school that would become Delgado Community College opened in 1921 as Delgado Central Trades Schools. The school transformed to Delgado Institute in the latter part of the 1950s, and became a junior college offering associate degree programs. During the 1960s and 70s, the name of the college was first changed to Isaac Delgado College, then to Delgado Vocational-Technical Junior College, before finally being renamed Delgado Community College in 1981 (History, 2008).

Many of the older community colleges in Louisiana have a history similar to Delgado, in that they began as a school focused on vocational education. Bossier Parish Community College (BPCC) was created as a pilot program by the Louisiana legislature in 1966 (History of BPCC, 2006). The purpose of this venture was to determine the need for and cost of establishing community colleges throughout the state. The college opened in 1967 and offered a number of vocational programs; it was not until 1979 that the college was able to award associate degrees. In 1995, the school formed an articulation agreement with six institutions, including Louisiana Tech University, Northwestern State University, Grambling State University, Southern Arkansas
University, Kilgore Junior College, and Louisiana State University-Shreveport. Two years later, BPCC became a member of University of Louisiana System.

The Louisiana State Legislature created Baton Rouge Community College (BRCC) in the summer of 1995 as an open-admission, two-year institution (About BRCC, 2008). The primary focus of this institution was to provide greater access to higher education in and around the Baton Rouge metropolitan area. Initially, Louisiana State University and Southern University administered the college jointly, and the college operated on the campus of Louisiana State University. Baton Rouge Community College currently offers programs in a variety of associate degrees, transfer credits, diplomas, and certifications (About BRCC, 2008). An articulation agreement was reached between BRCC and the following four-year institutions: Louisiana State University, Southern University, and Southeastern Louisiana University. Another important agreement was reached in 2001 between BRCC and the East Baton Rouge School System. This agreement allowed high school students to enroll in classes at BRCC, through which the student would receive college credit. Today, BRCC continues to increase its enrollment and the size of its campus in order to better serve the people of Baton Rouge.

Louisiana Technical College (LTC) was established in 1930 as trade schools focused on instruction in “manual arts” (About LCTCS, 2012). Through legislative acts in 1938, 1942, 1946, and 1972, the college system saw tremendous growth and expansion throughout the state. The LTC system currently features forty campuses statewide, and offers 75 diploma programs and 38 associate degree programs.

Louisiana’s community colleges were developed to provide vocational and associate degrees to students not planning to attend a four-year university (About LCTCS, 2012). Today, Louisiana’s Board of Regents seeks to expand the role of community colleges to provide an
access point to higher education by eliminating developmental courses at the university level (Board of Regents, 2011). Students deemed academically underprepared must complete developmental coursework at a community college. It is imperative that the developmental courses are effective and facilitate retention and transfer to four-year institutions.

**Developmental Education**

Developmental education, or remediation, serves as the resolution to balance meritocracy and democracy. Grubb et al. define remediation as “a class or activity intended to meet the needs of students who initially do not have skills, experience, or orientation necessary to perform at the level that the institutions or instructors recognize as ‘regular’ for those student” (as cited in Perin, 2006, p. 339). Much literature suggests that junior or community colleges are the appropriate venue for developmental education in higher education. The “definition of the junior college role and function… as a place of higher education distinguished from the four year college or university only by the brevity not the content or quality of curricula” (Dobberstein 1987: 16 as cited in Deil-Amen & Rosenbaum, 2002, p.252) further contributes to the case of a two-year verses four-year curriculum.

Remediation can be viewed in three strikingly different perspectives. Manno (1995) and McGrath and Spear (1991) define remediation as “a key component of access, equal opportunity, and assimilation to higher education” or “a symptom of academic degradation of the academy and a contributor to “dumbing down” entire institutions.” Rhoads and Valadez (1996) further define remediation as “an imposition of middle-class values on marginalized groups of students in a form that serves to preserve social inequalities” (as cited in Mills, 1998, p. 674). The first perspective describes developmental education as an important point of access that allows minorities and poorer students an opportunity to gain access to the resources provided by a
college education. The second perspective sees developmental education a threat to higher education that ultimately causes a drastic decrease in academic standards and decline in academic integrity. The last view explains that remediation is a tool of hegemony, forcing minorities and lower-class students into ineffective developmental programs and ultimately setting them up for failure.

**State of Developmental Education**

Several states have begun to move developmental education from public four-year universities to two-year community colleges (Bettinger & Long, 2005). Many argue that developmental education has historical roots in higher education and should be strengthened, not eliminated, especially since the minorities and lower socioeconomic groups make up the majority of developmental students. In a study by Bettinger and Long (2005), remediation is examined at the community college level. The researchers highlight that the current policy of many states is to restrict developmental classes to community colleges. They explain the rationale for this trend by stating that faculty and administration at four-year universities feel that two-year institution are the most appropriate place to provide this type of instruction due to cost efficiency and ability to provide more individual instruction. The researchers examine participation in developmental classes, ranging from placement to completion, and effects of remediation on students at community colleges. Bettinger and Long conclude that “remediation does not appear to have a negative effect” on students, but improvements still need to be made (p.25). The authors also suggest more research is needed on programs that increase the positive effects of remediation.
Student Success

Attewell, Lavin, Domina, and Levey’s (2006) study New Evidence on College Remediation looks at the National Educational Longitudinal Study (NELS:88) to gather data identifying the quantity of remediation occurring in postsecondary education and the diversity of students enrolled in such courses. The study further focuses on graduation rates, time to degree attainment, and detrimental effects of placement in multiple developmental courses. The study argues that though academically ill-prepared high school graduates most often take developmental classes, those students are capable of success in postsecondary education. Developmental classes are not found to be associated with decreased probability of academic achievement; however, remediation did increase time spent pursuing a degree. The authors conclude by identifying developmental education as a gatekeeper and means of quality control.

With community colleges taking on developmental education, the issue of “cooling out” becomes a concern for unprepared students (Deil-Amen & Rosenbaum, 2002). Clark (2008) describes “cooling out” as a counseling process that community colleges use to convince students that their goal of obtaining a bachelor’s degree is unrealistic while encouraging pursuance of vocational training or associate degree programs. Deli-Amen and Rosenbaum (2002) researched community colleges that try to eliminate the stigma of developmental placement in hope that students will be better able to achieve their desired academic goals. The authors found that students misinterpreted their educational progression due to the institution’s avoidance of labeling of developmental education programs and lack of counseling (p. 263). This can result in unanticipated financial and time consequences for the students.

Merisotis and Phipps (2000) describe the research on the effectiveness of developmental education as “sporadic, underfunded and inconclusive (p.75).” Crowe (1998) reports The
Southern Regional Education Board has observed that most states lack exit standards for developmental classes and many states lack data to support a successful program. For the most part, evaluation of developmental programs did not exist until the mid 1960s (Kulik, Kulik & Schwalb, 1983). It was during that time period that federal money began to flow into higher educational programs specifically designed to increase equal access and opportunity. With the use of federal money, it became required to document the effectiveness of developmental programs (Boylan, 1982).

Donovan (1975) provided one of the first reports on the effectiveness of developmental programs in postsecondary education. His research design used standardized pre/post-testing with students who took developmental classes in Mathematics, English, or Science. The results of Donovan’s research were positive, and showed that students improved their skills with remediation. Several other studies with a similar design, such as Allarie (1978), Bellucci (1981), Carter (1976), Moore (1977), and Swindling (1982) all yielded similar results; however, it was acknowledged that while students did improve their skills as based on standardized test and locally developed achievement measures, the extent of the improvement was varied from subject to subject and between different institutions.

In contrast to other studies, Suen (1979) examined programs designed to raise the grade point average of underprepared students using a Step-Wise Regression. This design isolated certain methods used in a developmental program to determine if there was a significant influence on grade point average. Through this research, it was found that developmental programs did significantly influence improved grade point averages.

Adelman (1998) evaluated the college transcripts of students from the national high school class of 1982. Adelman found an inverse relationship existed between the extent of
remediation needed and degree completion. When examining the students who earned more than a semester of college credit by age thirty, Adelman found that sixty percent of those students who were not required and did not participate in developmental courses completed the requirements for a bachelor’s or associate’s degree. Fifty-five percent of students who participated in one developmental course gained a degree, while only 35% of students who required more remediation achieved a degree completion. Adelman also found that students who were required to take a reading developmental course were more likely to be required to enroll in more than one developmental course. This resulted in degree completion by only twelve percent of students enrolled in developmental reading. This percentage drops to nine percent when student are required to enroll in more than one developmental course. It is then concluded that when the need for remediation stems from reading, the probability of persisting is very low.

Fike and Fike (2008) found that first year retention in the community college setting can be predicted from taking developmental reading, writing, and mathematics. The authors support student assessment for need of developmental programs, placement within a program, and evaluation of developmental program efficacy. Success strategies for underprepared community college students were the subject of Amey and Long’s (1998) study. The authors identify completion of developmental reading and English courses as indicative of future success. The authors support mandatory placement in developmental courses and recommend completion of such courses as early as possible in students’ curriculum.

Sheldon and Durdella (2010) studied success of students taking compressed length verses regular length developmental courses in the community college setting. Compressed length coursework was linked to more likely completion and student success. Kolajo’s 2004 study of community college student experience from developmental education to graduation analyzed
three years of data. Kalajo identifies a positive link between the number of developmental courses taken and time to graduation.

**Diversity and Access**

Community colleges serve a diverse student population, including more non-traditional students and students of varying ethnic background in comparison to four-year institutions (Community College Fact Sheet, 2012). The average community college student is 28 years of age, and 45% of the student body is between the ages of 22 and 39. Students who are enrolled full-time in coursework while working part-time make up 50% of the population, while 40% of students are enrolled part-time in coursework while working full-time. Women currently make up 57% of the American community college student body. Ethnic minorities account for 46% of the community college population. Multi-ethnic students enrollment in community college is predicted to further increase (Wolgemuth, Kees, & Safarik, 2003). Miller, Pope, and Steinmann (2005) identify multiple divisions of community college students. One group seeks community college as a terminal education role while another group views community college a step toward admission to a four-year institution. For this second group, community college is deemed “an obstacle to get out of the way” (Miller, Pope, & Steinmann, 2005). This second group also encompasses students in need of developmental education in order to meet their goal of transfer and retention to a university.

Timothy Leinbach (2005) reports that more than half of black students pursuing education through a community college drop out of school within six years. Black community college students demonstrate lower rates of transfer to four-year institutions as well as earning of certification or degrees when compared to white community college attendees. This illustrates the vital access point that developmental education and community colleges provide to minority
groups. This also elucidates the need for developmental education reform in order to increase effectiveness.

Another aspect of developmental education that deserves attention is the participation in this type of instruction by many older non-traditional students (Age and Remediation, 2006). In an article by Calcagno et al. (2006), the authors note that older students are affected by outside commitments such as work and a family, and that colleges need to be more flexible with class scheduling, provision of child care options, and inclusion of added distance learning programs to accommodate non-traditional students. When examining non-traditional participation in developmental courses the authors found that overall, participation decreased probability of graduation. In addition, the authors state, “Thus, enrollment in remedial classes had less negative relationship to the probability of graduation for an older student than for a younger student. This finding may reflect the varying motivations and goals of older students. (p. 4).”

In a study by Haveman and Smeeding (2006) on the effects of higher education and social mobility, the researchers stress the importance of community colleges acting as an access point for minorities and the underprivileged. Havenman and Smeeding support the research by Bettinger and Long (2005) in saying students who complete remediation can improve academically. The authors suggest a number of possible reforms for higher education. They conclude, “the U.S. system of higher education reinforces generational of income inequality and is far less oriented toward social mobility than it should be” (p. 143).

During the 1960s, reforms in higher education developed the concept of open admissions, which allowed any high school graduate to take part in postsecondary education (Mcalexander, 2000). In an article comparing the remediation philosophies of Mina Shaughnessy and K. Patricia Cross, Mcalexander explains the ideas of the two researchers and relates the relevance of
their work to the modern issue of remediation. While both support open admission as a means of general admission regardless of performance on college admissions exams, Cross deems remediation as elitist and recommends technical education as an alternative program. Shaughnessy recommends improvement in the methods of remediation.

Lavin and Weininger (1998) suggest preventing students who need remediation from attending four-year institutions could greatly decrease the likelihood of those students obtaining bachelor’s degrees. They also suggest that such policies are designed to limit access to higher education for students of color, students from less affluent families, and students for whom English is their second language.

**Protecting Academic Standards**

In a qualitative study by Dolores Perin (2006), the question is raised if community colleges can safeguard access and standards. Participants in the study are interviewed individually or in small groups. In addition to the interviews, Perin uses college catalogs, instructional reports and state policy documents to examine developmental practices. Data is collected from 15 participating community colleges that differ in location, size and urbanicity. The researcher concludes “remedial assessment and placement policies seemed to reflect unsuccessful attempts to protect standards and access goals at the same time” (p. 339). Perin also suggests community college’s developmental education programs need to be extensively evaluated in order for policy reform to adequately protect standards and access.

Kett (2001) suggests that remediation in basic skills is directly related to the decline of academic standards, grade inflation, and pressures by administrators to increase enrollment. Kett criticizes that most students participating in remediation are not prepared for college level material. Kett describes the developmental students’ mathematics performance as “shocking”
and observes that students lack the ability to comprehend and write on an “acceptable level” (p. 6). This research proposes that by providing developmental education, four-year institutions are accommodating students that lack the skills to be successful within the institutions. This ultimately leads to a decrease in academic standards and prestige.

**Developmental Policy**

Kathleen M. Shaw (1997) also uses qualitative data to examine the developmental policies of community colleges. Data is collected from eight urban community colleges with a large minority population and a high rate of transfer to four-year universities. The data is collected by a group of ethnographers adept in sociology, education, and anthropology. The ethnographers use a wide range of methods to collect informational interviews of students, faculty, and administration, as well as observations in formal and informal settings. More than 1000 data elements are gathered for this analysis. In this study Shaw, finds that different community colleges have varying interpretations of state developmental policies. The researcher believes that in order for remediation to be successful, the interpretation of policy must be consistent.

Ronald Roach’s (2000) article *Remediation Reform* explains California’s recent change in remediation policy. Incoming freshman are required to complete all developmental courses within one year of enrollment. Failure to pass these courses results in dismissal from the university. In the first year of policy implementation, developmental course completion increased from 40% to 79%. While states like New York have eliminated developmental courses completely, California is actively looking to improve academic standards without limiting access.
In an article that evaluated developmental education in colleges and universities, Merisotis and Phipps (2000) suggest three strategies to improve developmental education. These include inter-institutional collaboration, making remediation a comprehensive program, and utilizing technology. Inter-institutional collaboration within a region or state greatly increases the opportunities for collaborative research, while at the same time providing evaluation and creation of best practices. Not only is this beneficial to student, but to faculty as well, by providing a new pedagogy for teachers teaching this particular population of students.

Illich and Hagan’s (2004) study of policy implications regarding performance in college courses among students enrolled in developmental education found that college level pass rates are lower among students who fail to successfully complete remediation. Furthermore, the authors state that students who complete developmental education are typically successful in later coursework. Policy implications suggested include focusing on the overall development of the student, rather than a specific area of educational deficiency in order to optimize student success.

In Jeanita W. Richardson’s (2005) article, “Who Shall be Educated?*: The Case of Restricting Remediation at the City University of New York, the researcher examines the history of remediation in New York and criticizes the current policies of the City University of New York (CUNY). Richardson explains that the open admissions policies were created in the 1960s in order for minority and lower economic status students to have access to higher education. The author argues that this expanded access was the reason for the university’s inception, and that the elimination of developmental programs undermines the intended purpose. Richardson also points out that the State University of New York, with a majority white middle class cliental, was not required to drop developmental courses. Richardson shows strong conviction on the subject
of open access, as described in her closing statement: “unfortunately, for the thousands of
African American, Hispanic, immigrants, and low-income individuals, prospects for access to
higher education and social mobility are slipping like sand through their fingers” (p.186). By
delegating developmental education to community colleges and removing such programs from
four-year institutions, Richardson feels that the resulting effect will place a barrier between
minority students and education.

Making remediation a comprehensive program requires setting into policy the best
practices for providing developmental education that are found to be the most effective by
research. Massachusetts’s community colleges conducted research to establish best practices for
providing developmental education within their system (Massachusetts, 1998). These practices
include:

- **Assessment and Placement**- this would require all students to be assessed in
  reading, writing, and mathematics. Students would be placed in the appropriate
  level of remediation in accordance with the results of the mandatory
  comprehensive instrument.

- **Curriculum Design and Delivery**- this involves the creation of clear goals and
  objective for the developmental program that can be easily communicated to the
  students.

- **Support Services**- it is important to realize individual differences among student
  in a developmental classroom. In order to identify a student’s weakest area,
  “intrusive” advising is used to create more individualized help.
• Evaluation- effectiveness in developmental education programs should be evaluated based how many students successfully complete the program, how many persist in college-level courses, and how many obtain their academic goals.

Utilizing technology such as computers has enhanced the learning experience in classrooms, particularly in developmental programs. Companies have developed developmental software in such subjects as math and writing. This type of educational software allows students to work at their own pace, and provides the instructor with an opportunity to give individualized assistance when a student is having a problem with particular concepts.

Cost of Remediation

Boylan and Saxon (2001) consider the cost of developmental education in their study. The researchers examine five previous studies. The research is conducted using the Educational Resources Information Center (ERIC), in conjunction with informal discussions with experts in the field. The researchers acknowledge there is limited research on the topic of remediation cost, despite critics’ claims that remediation is exorbitantly costing taxpayers. Through their analysis of the research, Boylan and Saxon conclude that remediation is worth the cost and funding of developmental programs which are a minimal expense, saying, “Remediation typically cost less than 10% of education as a whole, and, in most cases, this figure is in the 1 to 2% range” (p.6). It is also noted that the price of remediation is less expensive than future dependency on state funded social programs such as unemployment in the future.

Transfer and Retention

In higher education, low retention and transfer rates are a persistent concern (Tinto, 1996). Approximately 50% of new community college students will dropout before the beginning of the second year. Colleges and universities have always focused on retention and attrition rates as a
measure of success; however, the college attrition rate is increasing (Ewell, 1984, Astin, 1993). It is estimated that approximately one-half of students entering community colleges, and more than one-fourth of students entering four-year colleges and universities fail to continue their studies past the first year (Tinto, 1993). Vincent Tinto (1987) developed The Integration Model to illuminate the relationship between retention and student involvement in their institution. Tinto concludes that students who are engaged in the academic and social aspects of higher education are more likely to persist at their institutions, while students who fail to integrate are less likely to be successful.

Bean (1990) and Tierney (2002) both reiterate that involvement is the key to retention. Tinto’s research serves as the foundation for the research on student retention and attrition, but this research is not without limitations. One such limitation would be the fact that Tinto based his research at four-year institutions and not in the community college setting. Hagedorn at el (2003), stresses the importance of guidance for students who begin their post-secondary education at a community college with the hope of obtaining a bachelor degree. When examining retention at community colleges, Hagedorn at al. (2002) believes that there are three important facts to retain: 1) attrition is very high and transfer rates are low, 2) there is lack of research that specifically examines community college student’s persistence and transfer, and 3) research must be developed with knowledge of this specific student population.

**Social Integration and Student Involvement**

Social integration in an academic environment plays a key role in ensuring student success upon entering an institution of higher learning.

Tinto (1975) claims:

...it is the person’s normative and structural integration into the academic and social systems that leads to the new level of commitment… the higher the
degree of integration of the individual into the college system, the greater will be his commitment to the specific institution and to the goal of college completion (p.96).

This suggests that if students are able to immerse themselves in the culture of the institution, then there exists a higher likelihood of persistence. Tinto (1987, 1993) reiterates this idea in his theory of student departure, which establishes a correlation between students that felt socially integrated and persistence. Other research, such as such as the work of Sanchez (2000), has found a strong relationship between social integration and persistence. Sanchez states that social integration can lead to an increase in learning opportunities, which can equate to student persistence.

Bers and Smith (1991) examined social integration as a combination of the students’ experiences with friends and faculty. In a sample of two-year students, the researchers found a strong relationship between the social integration and persistence. When examining students that transferred from community college to a university, Nora and Rendon (1990) established that students that experienced a higher level of social integration were more likely to successfully transfer from the community college to a four-year institution.

When studying social integration at community colleges, Chapman and Pascarella (1983) established that community college students experience low levels of social integration. They explain:

Maybe community college students, in the main, view their institutions as something of a supermarket. Where one goes to get whatever one needs and then leaves- without anything more happening in the way of integration or involvement in culture (p.319).

This suggests that students’ perception of community colleges contributes to low levels of social integration; this ultimately may result in negative academic outcomes.
The theory of student involvement emphasizes behavioral processes that assist student development (Astin, 1984). Chickering (1969) and Tinto (1975) similarly define student development as a function that relates student background, the organizational characteristics of the institution, social integration, and academic integration. Astin (1999) believes student involvement is “a powerful means of enhancing almost all of the undergraduate student’s cognitive and affective development (p.132).” Literature on community college policy reveals that social involvement is connected to academic success (Ortiz, 1995). Astin (1993) stresses the importance of student involvement in the college environment, because it is strongly related to developmental outcomes. Astin believes:

The key to enhancing learning and personal development is not simply for faculty to teach more and better, but also to create conditions that motivate and inspire students to devote time and energy to educationally purposeful activities, both in and outside the classroom (p.1).

Leadership activities are another way to achieve student involvement (Astin, 1993). It is important to not limit student involvement as strictly peer-to-peer and student-to-faculty interaction, but to also incorporate participation in leadership activities. Students who participate in leadership activities experience higher educational attainment than those who do not participate in such activities. Roberts (1997) suggests community colleges should emphasize developing leadership skills and abilities as achieving important aspects of their mission statement, which includes vocational and workforce training. Roberts believes that leadership development is instrumental in the development of the whole person.

The presented research illustrates the importance of understanding developmental education in the community college setting of American higher education. Developmental education has a vital role in preserving open admissions and has an impact on student access,
retention, and success. Furthermore, the development of a standard effective model for remediation could improve academic outcomes for the community college student population.

**Underlying Theory**

**Epistemological Reflection Model**

Baxter Magolda’s (1992) Epistemological Reflection Model explains the ways in which college students “make meaning.” The model focuses on an individual’s transition from simply reciting the knowledge of instructors to forming and articulating their own perspective. During the process of forming a personal perspective, a shift in relationship authority takes place. This shift entails a movement from relying on authority to the creation of a personal sense of authority. This leads to a transition in peer relationships that creates information that is incorporated into personal thinking rather than a mechanism of support. When applying Epistemological Reflection Model to developmental education, the researcher sought to examine how students perceive the developmental education environment and its effectiveness in addressing their academic deficiencies while fostering achievement of academic goals. Epistemological Reflection Model parallels the developmental education model in helping students to become life-long learners and analytical thinkers through transitions of cognitive development.

Baxter Magolda’s (1992) Epistemological Reflection Model, an outgrowth of cognitive development theory and cognitive-structural theory, illustrates four patterns of reasoning in the college student population. The first pattern, absolute knowing, is described as a time of belief in absolute knowledge; unknown information needs simply to be absorbed from some other source. Transitional knowledge follows, and according to Magolda, is triggered by experiencing alternatives to one’s current view. A shift away from absolute thinking occurs, and the student
becomes an increasingly active learner. In the next pattern, independent knowing, one’s own opinion becomes valued for its contribution to current knowledge. In the final pattern, contextual knowing, one’s own opinion and knowledge are seen within the context of and contributing to other’s knowledge. Magolda also identifies three primary storylines within this theory: formation of individual voice, changing relationship with authority toward independence, and developing relationships with peers as contributing contextual knowledge.

Research on student perception of developmental education within the community college setting can be viewed through the lens of Epistemological Reflection Theory as students experience these knowledge patterns concurrent with progression of learning. Incoming students experiencing a developmental education program are expected to enter into the absolute knowing pattern, and progress through the sequential patterns with completion of coursework and advancement in learning.

**Summary of Literature Review**

This review of literature illustrates the ideologies that fostered the development of post-secondary developmental education. Democracy and meritocracy are deeply embedded ideologies in American society. These two fundamental ideas were established during a time when the citizenry primarily consisted of wealthy male white landowners. The education system of the time was design to ensure educated citizens would continue the success of the newly established country. Developmental education was established at institutions of higher education and was deemed necessary due to the lack of elementary and secondary education. As times progressed and the number of citizens began expanded to include other members of society, the demand for education increased. This demand led to the creation of public institutions of higher education, and eventually the establishment of free public education. With this increase in
students seeking higher education, the call to preserve academic standards led to the creation of aptitude testing and entrance exams. The introduction of standardized tests reinforced meritocratic ideals, while simultaneously limiting the democratic notion of equal access.

Community colleges were established to alleviate overcrowding in universities by providing the first two years of a college curriculum. Community colleges were eventually expanded to include vocational programs, workforce training, and awarding associate degrees. In Louisiana, community colleges have recently been designated to provide developmental education. While some research suggests that this is an attempt to limit opportunity and equal access, others suggest that community colleges are simply better equipped to provide developmental education. The shift of developmental education to community colleges allows universities to increase academic standards and raise their prestige. With this responsibility, it is imperative that community colleges provide effective developmental programs to ensure that students who desire higher education can gain access to four-year universities.

Literature on the effectiveness of developmental education suggests that programs are effective. This research is based primarily on test scores, grade-point average, and retention data; however, research focusing on rating student satisfaction and student’s perception are rare. The evaluation process of developmental programs should be more comprehensive and include students’ ideas and feedback. This data is essential in assessing the overall effectiveness of developmental programs in higher education.

The researcher suggests that program evaluation of developmental education should also consider the human dimension, such as students’ perception of mandatory participation in developmental program at a community college. The researcher believes that survey and interview data, from students, would serve as an important first step in adequately evaluating the
effectiveness of developmental programs. The researcher seeks to fill a gap in the literature that fails to address students’ perception of developmental programs while they are participating in developmental coursework.

The topic of remediation has been a subject of debate for a number of years. Policies must weigh the benefits of raising academic standards while considering the effect on limiting access. The themes of academic standards and access are prevalent throughout the research. Inadequate research has been completed pertaining to the effectiveness of developmental programs at the community college level. It is the lack of research on the effectiveness of developmental courses that has led the researcher to develop this study. The researcher’s study is designed to determine the perceived effectiveness of developmental education in a community college in Louisiana.
CHAPTER 3
METHODOLGY

Introduction

The intent of the study was to determine how students perceive the effectiveness of a developmental education program at a community college in Louisiana. The following chapter will review setting, research design, sampling strategy, data collection methods, research questions, and validity and reliability, and mode of representation for the study.

Setting

A community college in Louisiana was selected as the focus of this research due to the current reorganization of higher education in Louisiana, as well as the Board of Regents recommendation to remove developmental coursework from four-year institutions by 2014 (Master Plan, 2011). As of the fall 2010, 16% of first-year freshmen at four-year institutions were enrolled in developmental coursework (Board of Regents, 2011); this represents a population that will be required to complete such coursework within the community college setting after 2014. With low transfer/retention rates between two-year and four-year institutions (Board of Regents, 2011), developmental students enrolled in developmental coursework are a population that warrants further investigation. The participating community college was selected based on availability and willingness to participate in the study. The community college is located in the state of Louisiana and provides both vocational and traditional college curricula. This institution also provides a developmental program to students based on performance and standardized entrance exams. Students that complete developmental courses may continue in a program of study culminating with an associate’s degree. Students may also choose to seek entrance into a four-year institution.
Research Design

This qualitative study employed a holistic single-case study design. Yin (2009) defines a case study as:

… an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context especially when the boundaries between phenomenon and context are not clearly evident (p.18).

Yin (2009) also states that case-study design is the “preferred strategy when ‘how’ and ‘why’ questions are being posed, when the investigator has little control over events…” (p.1). The holistic design is appropriate to the global nature of the studied program as well as the holistic nature of the underlying epistemological framework. The role of a survey as a research instrument produced a source of evidence that was considered as one component of the overall assessment of student perception of developmental education effectiveness. The use of focused interviews elaborated on questions formed from the survey. An open ended, conversational interview technique served to verify facts established through the survey as well as question why occurrences and perceptions developed. The researcher used a constructivist approach encompassing survey and interview data to establish a qualitative view on student perception of community college developmental education program effectiveness.

Framework

Baxter Magolda’s (1992) Epistemological Reflection Model explores the transition of college students from recitation of knowledge to development of individual perspective. The use of this framework illustrates how college students “make meaning” in formation of personal thinking and perspective. Application of Epistemological Reflection Model to developmental education research examined student perception of developmental education effectiveness through cognitive development and formation of life-long learners.
Sampling

Purposeful and criterion sampling strategies were applied in the study of a developmental program at a community college in the state of Louisiana. This community college, like with other community colleges in Louisiana, has a two-fold mission that includes providing vocational education, as well as the first two years of a traditional college curriculum. These programs culminate with a certification required to perform within specific career fields or an associate degree, which allows students to matriculate to a four-year institution as an upper-classman.

Using this sampling technique, the researcher gathered data from a community college located in southeastern Louisiana. This community college consists of three primary campuses, two of which were accessed for this study. The sample was based on the 409 students participating in developmental courses during the fall 2012 and spring 2013 semesters. Approximately 7 instructors teach the developmental courses offered on campus. It is noted that instructors teach multiple developmental courses that are offered during the same class time; in addition, instructors are responsible for high school students completing course requirements to receive the equivalent to a high school diploma. There are no developmental courses offered during the summer semester, or exclusively online. The developmental courses offered include:

- Developmental English 0090
- Developmental English 0091
- Developmental English 0092
- Developmental Math 0090
- Developmental Math 0091
- Developmental Math 0092
- Developmental Reading 0090
- Developmental Reading 0091
- Developmental Reading 0092
The sample was based on students enrolled in developmental education courses through the community college. To be eligible for the study, students were required to be enrolled in the community college and currently participating in at least one developmental education course. High school students completing high school diploma equivalent coursework were excluded from the study. Approximately 61 students received the survey. To encourage a high response rate, the electronic survey link was saved to all computers within the developmental classrooms. Classes held in a traditional classroom without computer access were provided paper surveys. Students who completed the survey were asked to volunteer to participate in the student interviews. Interviews were conducted with 12 students; analysis was conducted utilizing all interviews in which students were required to complete more than one developmental course. Student interviews were conducted with developmental education students to gather qualitative data regarding the students’ perception of the key components of a successful developmental education program. The students were asked to elaborate on how each component is implemented within their institution.

**Data Collection**

The data collection process occurred in three steps. The first step consisted of obtaining approval from the Louisiana State University Institutional Review Board (LSU IRB) and gaining permission to conduct the study within the community college. The second step included meeting with school administrators and developmental instructors in order to explain the purpose of the study and gain access to classrooms to collect data and conduct interviews. In the third step, the researcher distributed the survey to students enrolled in developmental courses to complete during scheduled class time. The students that completed the survey were invited to participate in a follow-up interview. In this final step, the researcher collected and analyzed the
obtained data using the Statistical Package for Social Sciences (SPSS) software and simple
descriptive statistics.

**Step 1**

The researcher began searching for a community college to participate in the study during
the summer of 2012. Community college administration was contacted through email in order
gain permission to conduct the proposed study. The researcher completed an LSU IRB before
the data collection was implemented. The IRB addressed the purpose of the study, procedure,
instrumentation, and voluntary nature of the proposed research. LSU IRB #7056 was approved
with signed consent waived, and the researcher was given permission to conduct the proposed
study.

**Step 2**

Following granting of permission to implement the proposed study, the survey (Appendix
A) was made available using GoogleDocs®. Developmental education program faculty within
the participating community college were sent an email with an introductory message explaining
the study rationale and an electronic link to the student survey.

**Step 3**

The study data was collected by the researcher for qualitative data analysis. The survey
was accessed through a saved link on developmental classroom computers; students in a
classroom without computer access received a paper version of the survey (Creswell, 2009).
Student interviews were conducted to gather qualitative data regarding the students’ perceived
benefit of the key components of developmental education. Interviews were essential for the
case study research method. The data for this study was only collected upon the proposal
acceptance and approval from LSU during the fall of 2012.
Data Analysis

For this study, the researcher utilized a survey that was administered electronically or on paper to students participating in developmental courses (see appendix A for survey) at a community college. The student survey consisted of both Likert scale close-ended questions and open-ended questions. The student survey consisted of thirty-five questions. The researcher used SPSS for analysis of the data obtained through the study. The researcher analyzed the results of the survey and interviews in order to develop a representation of the students’ perception of effectiveness of a developmental education program at a community college in Louisiana.

**Research Question 1: How do students in a developmental education program at the community college level perceive the effectiveness of the program?**

The student survey began with questions designed to provide demographic information about the students taking developmental courses. The information collected established the gender, age, and ethnicity of the study population of developmental students in this research setting. Educational background was established through questions about possession of a high school diploma versus a GED, type of secondary educational institution attended, previous attendance at an institution of higher education, academic classification, and current program of study. Data was collected regarding enrollment in developmental courses, including number of courses enrolled, number of required developmental courses in the program of study, and previous completion of developmental coursework. The students’ academic goal was then established.

Following the demographic questions, information about the students’ perception of effectiveness of the developmental program and coursework was established through five-point Likert scale questions with responses ranging from strongly agree to strongly disagree. These
questions asked the student to assess the developmental program in terms of improvement in skills, usefulness of skills in future applications, ability to meet educational needs, and confidence in ability to reach educational goals. Several questions focused on the instructor’s role in the developmental program effectiveness, and students were asked to assess the instructor’s provision of activities to improve skills, accessibility for help with difficult coursework, and positive impact on learning. Students were then asked to evaluate their satisfaction with the effectiveness of the developmental coursework. The following questions emphasized the students’ perception of the literature based six components of a developmental education that foster student success. The mandatory assessment component was determined by questioning use of placement tests to place students in developmental education coursework, as well as by asking for the students’ opinion regarding the importance of mandatory assessment. Mandatory placement is reviewed in terms of the students’ perception of the benefit to preparation for later coursework.

Students were then asked if advising or counseling services had been offered or utilized through the developmental program. Student advisement to take a developmental course was also considered. Tutoring availability and participation was further assessed. Evaluation of the developmental program or courses was assessed through questioning of provision of an opportunity to evaluate as well as participation in evaluation of the program or courses. Student perception of impact of such evaluation was also considered. A centralized program structure was assessed by questioning whether the student obtained information about the developmental program from one department versus multiple departments for each needed course. The final question of the student survey was open-ended. This question asked students to describe the effect that participation in a developmental education program has had on their education.
Research Question 1 was answered through the use of a thirty-five question survey. Demographic data provided background about the studied population. Program effectiveness was established through student perception of educational benefit, instructor role, and program incorporation of six key developmental education program components. This data was analyzed to demonstrate the students’ perceived effectiveness of a developmental education program at a technical community college in Louisiana.

**Research Question 2: Which developmental education components are perceived by students as most beneficial to success and development of knowledge and skills needed to successfully attain academic goals?**

Following the student survey, individual interviews were conducted with developmental course students to question the perceived benefit of the six components of successful developmental education as well as the program environment. These include the use of a centralized program organizational structure, mandatory assessment of students, mandatory placement of students, tutor training, use of advising/counseling services, and program evaluation. Interviews were guided and informal. The student survey contained twenty questions that reflected student perception of the benefit of these same components. Analysis of data resulting from student surveys provided information about the perceived benefit of key components of a developmental program as well as illuminated how these components are utilized at a technical community college in Louisiana. Guided interview questions were the following:

1. Why did you choose to attend this school?
2. How did your high school experience prepare you for college?
3. What are your academic and career goals?
4. What advising or counseling have you had on how to achieve those goals?
5. Why are you taking developmental courses?

6. Describe developmental courses in which you have participated, including coursework, assignments, learning environment, teaching methods, technology use, and instructor.

7. How have developmental education courses helped you in college?

8. Describe your participation in tutoring sessions.

9. How would you rate your experience in the developmental classes?

10. How do you think developmental education classes could be improved?

**Pilot Study**

A pilot study was conducted by the researcher during the fall semester of 2012 and involved a developmental program at a community college in Mississippi. The participating program met all of the requirements for the study. The researcher emailed the pilot study to an instructor who then administered the instrument. Students received an electronic link to the survey and instructions from the instructor. Of the nine students enrolled in the developmental course, four students completed the survey. The results of the survey proved valuable to the study.

As a result of the pilot study, minor changes were made to the survey format. Some of the changes include providing more details in certain questions, along with wording changes to clarify answer choices. Appendix B displays the pilot survey. The pilot study proved to be an integral part of the research process by alerting the researcher of inconsistencies within the survey instrument. The pilot also provided evidence that the survey produced data that was pertinent to purpose of the study.
Validity and Reliability

Threats to internal validity include participants enrolled in developmental courses but not required to participate in these courses. This includes non-traditional students who may feel they need the developmental course to refresh their skills. This could also include traditional students who were advised to participate in developmental courses due to low scores, but not low enough to require enrollment. These threats to validity are addressed by the sample size and the demographic questions within the survey, which require students to identify if they were required to enroll in developmental courses. External validity may be compromised by population characteristics. To address this challenge, the sample includes a variety of developmental courses that contain a diverse student population.

Mode of Representation

The general organization of this dissertation consisted of an introductory chapter, a review of literature followed by analysis of the data, and implications and conclusions. The introductory chapter presented the problem and theoretical perspectives that were used to examine the issues. The data was examined to draw attention to the formation of developmental courses in community colleges and their effectiveness. Analyses were developed to present students’ perception of effectiveness of developmental courses. The implications and concluding chapters discuss how student perception can help focus the content of developmental coursework on the needs of the students. Some developmental education recommendations could include designing content that is individualized to the specific needs of the students and providing students with support services aimed at improving social integration. This research leads to new research on community college efficacy regarding preparation of students for coursework at a four-year institution. This research provides a foundation for additional research that can be
utilized to create new developmental policies and practice that can lead to increased success rates.

**Demographics of the Study Participants**

Demographics were collected from the student population enrolled in developmental coursework at a technical community college in Louisiana. This population was derived from a total of 409 developmental education program students enrolled in four regionally divided campuses. Two campuses were utilized for this study. From the two participating campuses, the study population was further narrowed to students who attended developmental coursework in person during the assigned course class times. A total of 62 participants completed the survey component of the study (N=62). The first two questions of the survey created a participant identifier and determined if the student has previously completed the survey. Evaluation of previous survey completion allowed the researcher to eliminate duplicate data. The researcher also conducted a manual analysis of the survey results for duplications and errors resulting from use of the GoogleDoc survey instrument. The following three questions of the survey provided demographic data regarding gender, age, and race. Of the 62 student participants, 41 were identified as female (66.1%) and 21 were identified as male (33.9%). Age was divided into age range categories (Table 3.1); 44 participants (71%) identified themselves as between the ages of 17 and 24. Five students (8.1%) were identified as being 25 to 30 years old. Four students (6.5%) were between 31 and 35 years old. Six students (9.6%) were identified as between the ages of 36 and 40, while only 3 students (4.8%) were 41 years of age or older.
Table 3.1: Age of Study Participants

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-24</td>
<td>44</td>
<td>71.0</td>
</tr>
<tr>
<td>25-30</td>
<td>5</td>
<td>8.1</td>
</tr>
<tr>
<td>31-35</td>
<td>4</td>
<td>6.5</td>
</tr>
<tr>
<td>36-40</td>
<td>6</td>
<td>9.6</td>
</tr>
<tr>
<td>41 and older</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

Students were asked to identify their race; of the 62 participants, 20 students (32.3%) identified themselves as White and 35 students (56.5%) were identified as Black or African American. Three students (4.8%) selected Hispanic or Latino. Only one student (1.6%) identified themselves as Asian and one student (1.6%) selected multi-racial. Two students (3.2%) declined to answer this question.

**Education Background**

Questions 6 through 14 asked the study participants to elaborate on their educational background. Students were first asked to identify whether they had a high school diploma or a GED. Of the 62 participating students, 56 (90.3%) held a high school diploma while only 6 (9.7%) completed a GED. Students then identified their type of high school education program as public school, private school, home-school, GED program, or more than one type of program. The majority of participants (N=47, 75.8%) attended a public high school. Private school was attended by 6 students (9.7%) while 1 student (1.6%) was home-schooled. Four students (6.5%) identified GED as their secondary education program and 3 students (4.8%) attended more than 1 type of program. Since 6 participants obtained a GED, it is determined that two students participated in a GED program in combination with an additional type of secondary education program. Question 8 asked students to state whether they had attended a college or institution of higher education other than the one in which they are currently enrolled. A total of 23 students...
(37.1%) affirmed that they had attended another institution while the majority (N=39, 62.9%) denied attendance at any other educational institution. This reflects the use of a community college as an initial entry point for students seeking postsecondary education. Question 9 identified academic ranking as freshman (N=44, 71.0%), sophomore (N=8, 12.9%), junior (N=4, 6.5%), senior (N=1, 1.6%), or unknown (N=5, 8.1%). It was anticipated that most of the students participating in developmental education courses would be identified as freshman since developmental coursework is typically required prior to enrollment in upper-level courses.

Question 10 asked for the students’ program of study; this question utilized a free text response format. Student responses were categorized by the researcher using the community college handbook to identify available programs of study within the institution (Table 3.2).

<table>
<thead>
<tr>
<th>Program of Study</th>
<th>n</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 year school/non-community college</td>
<td>23</td>
<td>37.1</td>
</tr>
<tr>
<td>Business Office Technology</td>
<td>8</td>
<td>12.9</td>
</tr>
<tr>
<td>Undecided</td>
<td>8</td>
<td>12.9</td>
</tr>
<tr>
<td>Care and Development of Young Children</td>
<td>6</td>
<td>9.7</td>
</tr>
<tr>
<td>Computer/Networking</td>
<td>4</td>
<td>6.5</td>
</tr>
<tr>
<td>Medical Assistant</td>
<td>4</td>
<td>6.5</td>
</tr>
<tr>
<td>Drafting &amp; Design Technician</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>Practical Nursing</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>Pharmacy Technician</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Welding</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

The researcher created a category for students whose identified program of study was beyond the offerings of the community college and required future enrollment in a four-year institution. This category of four-year institution/non-community college program of study accounted for 23 of the students (37.1%). Eight students (12.9%) declared their program to be undecided. The
remaining nine identified categories all corresponded to programs offered within the community college that served as the study setting, including: business office technology (N=8, 12.9%), care and development of young children (N=6, 9.7%), computer/networking (N=4, 6.5%), medical assistant (N=4, 6.5%), drafting & design technician (N=3, 4.8%), criminal justice (N=2, 3.2%), practical nursing (N=2, 3.2%), pharmacy technician (N=1, 1.6%), and welding (N=1, 1.6%).

In questions 11, 12, and 13, students were asked to provide information regard their current enrollment in developmental courses, required enrollment in developmental courses, and previous completion of developmental courses (Table 3.3).

Table 3.3: Number of Developmental Courses Enrolled, Required, Completed

<table>
<thead>
<tr>
<th>Number of Courses Enrolled</th>
<th>n</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29</td>
<td>46.8</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>38.7</td>
</tr>
<tr>
<td>3 or more</td>
<td>9</td>
<td>14.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Courses Required</th>
<th>n</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>1</td>
<td>20</td>
<td>32.3</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>27.4</td>
</tr>
<tr>
<td>3 or more</td>
<td>23</td>
<td>37.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Courses Completed</th>
<th>n</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>24</td>
<td>38.7</td>
</tr>
<tr>
<td>1</td>
<td>15</td>
<td>24.2</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>27.4</td>
</tr>
<tr>
<td>3 or more</td>
<td>6</td>
<td>9.7</td>
</tr>
</tbody>
</table>

When asked about the number of developmental courses in which they were currently enrolled, 29 students (46.8%) stated one course. A total of 38.7% (N=24) were enrolled in two developmental courses, while 14.5% (N=9) were enrolled in three or more. Students were then asked to identify the number of developmental courses they were required to take for their program of study. Two students (3.2%) stated that no developmental courses were required for their current program of study. One required course was identified by 20 students (32.2%), 2
courses by 17 students (27.4%), and 3 or more courses by 23 students (37.1%). Students additionally identified the number of developmental courses that they had previously completed; 38.7% (N=24) stated that they had not completed any previous developmental courses. The students that completed one course equaled 24.2% (N=15), 27.4% (N=17) completed two courses, and 9.7% (N=6) completed three or more developmental courses by the time of this study.

In question 14, students were asked in an open-ended question to identify their degree goal and/or career plans (Table 3.4). The researcher then categorized their response as goals that could be attained through a two-year program versus a four-year program. A third category entitled other represented goals which could be pursued through either a two-year or four-year program, or goals which pertained to general academic performance rather than degree completion. Twenty-eight students (45.2%) identified a goal that could be achieved through a two-year degree or certification program. Twenty-eight students (45.2%) identified a goal that could be achieved through a four-year program. Six students (9.7%) provided goals that were categorized as other, which included short-term goals such as getting better grades.

Table 3.4: Academic Goal

<table>
<thead>
<tr>
<th>Academic Goal</th>
<th>n</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-year program</td>
<td>28</td>
<td>45.2</td>
</tr>
<tr>
<td>4-year program</td>
<td>28</td>
<td>45.2</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>9.6</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

Interviews were conducted with 12 students that previously completed the survey, which corresponds to 19% of the surveyed students. Students that agreed to participate in the survey were provided an incentive for their time. The demographics of the interviewed students are reflected in the survey participants. Females accounted for 75% of students interviewed. A total
of 50% of students were between the ages of 17-24; 8.3% each were 25-30 and 31-35 years of age. Two students each were within the age categories of 36-40 and 41 or older (16.7%).

Hispanic or Latino students accounted for 16.7% of students interviewed, while Black or African American students accounted for 41.7% of all interviews. Of the students interviewed, 33.3% were identified as White, and 8.3% identified as Asian. Table 3.5 illustrates the demographics of students who participated in the interview portion of the study.

Table 3.5: Demographics of Interviewed Students

<table>
<thead>
<tr>
<th>Student Identifier</th>
<th>Gender</th>
<th>Age (Years)</th>
<th>Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student A</td>
<td>Female</td>
<td>25-30</td>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td>Student B</td>
<td>Male</td>
<td>17-24</td>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td>Student C</td>
<td>Male</td>
<td>17-24</td>
<td>Black or African American</td>
</tr>
<tr>
<td>Student D</td>
<td>Female</td>
<td>36-40</td>
<td>White</td>
</tr>
<tr>
<td>Student E</td>
<td>Female</td>
<td>17-24</td>
<td>Black or African American</td>
</tr>
<tr>
<td>Student F</td>
<td>Female</td>
<td>17-24</td>
<td>Black or African American</td>
</tr>
<tr>
<td>Student G</td>
<td>Male</td>
<td>31-35</td>
<td>White</td>
</tr>
<tr>
<td>Student H</td>
<td>Female</td>
<td>36-40</td>
<td>Black or African American</td>
</tr>
<tr>
<td>Student I</td>
<td>Female</td>
<td>17-24</td>
<td>Asian</td>
</tr>
<tr>
<td>Student J</td>
<td>Female</td>
<td>41 or older</td>
<td>White</td>
</tr>
<tr>
<td>Student K</td>
<td>Female</td>
<td>41 or older</td>
<td>Black or African American</td>
</tr>
<tr>
<td>Student L</td>
<td>Female</td>
<td>17-24</td>
<td>White</td>
</tr>
</tbody>
</table>
CHAPTER 4
RESEARCH FINDINGS

This study was designed to determine student perception of the effectiveness of a developmental education program at a community college in Louisiana. This study utilized a qualitative, holistic single-case study design. Survey data was collected in conjunction with interviews in order to conduct inquiry into student perception of developmental program components regarding effectiveness in achieving academic goals. The qualitative data for this research was collected over a six-month period provided through the use of a student survey and face-to-face interviews. The survey data gauged students’ perception of the developmental program and face-to-face interviews provided a more profound understanding of students’ perception of the community college environment. Surveys and face-to-face interviews together painted a picture of the developmental community college student experience. The researcher contacted administrators at community colleges and technical community colleges throughout the state of Louisiana to gain access to conduct the study. The researcher met with instructors and administrators to further discuss the purpose of the study, the logistics of the data collection process, and the study instrument.

Initially, the researcher and course instructors determined that the class instructors would administer the survey to their students. By the end of the fall semester of 2012, only nine students had participated in the survey. The researcher concluded that the low response rate could be contributed to the two main factors. The first is that instructors provided students with the link to the survey but did not provide class time to complete the survey. The other factor that resulted in the low participation rate was that the survey link was mailed to students’ school email account, an account that students access infrequently. In order to increase the response rate, the researcher determined the need to personally administer the survey and provide the
students with an incentive; however, this delayed data collection until the middle of the spring semester of 2013. It was imperative to the study that students enrolled in the developmental course had participated in the course for at least half the semester in order for the students to develop a perception of course effectiveness. The researcher personally administered the survey and conducted interviews during a week in March of 2013. This chapter presents the study results and outcomes of the research questions.

Chapter three provided the demographics of the population, which was collected in items 1 through 14 of the survey. The following sections represents data collected in items 15 through 35 of the survey, as well as face-to-face interviews.

**Developmental Education Program**

Items 15 through 34 were presented as five-point Likert-scale statements, which allowed for ranking as strongly agree, agree, neutral, disagree, and strongly disagree. These questions concentrated on the established components of a successful developmental education program, which includes a centralized program organizational structure, mandatory assessment of students, mandatory placement of students in a developmental education program based on assessment, providing trained tutors for developmental education students, advising/counseling services, and program evaluation (Boylan et al., 1997), as well as students’ perceived benefits of the developmental courses. A response of strongly agree or agree was interpreted as a positive response to the statement; a response of strongly disagree or disagree was interpreted as a negative response. In item 15, 88.7% (N = 55) of responders strongly agreed or agreed that their skills have improved as a result of taking developmental coursework. Students who believe that the skills learned through developmental coursework will be useful in the future (item 16) was 82.5% (N = 51). When asked if objectives of developmental courses meet their educational
needs, 90.4% (N = 56) of students strongly agreed or agreed (item 17). In question 18, 85.5% (N = 53) of students positively identified that developmental coursework has made them more confident in their ability to attain educational goals. Items 19, 20, and 21 pertained to developmental course instructors’ impact on the course effectiveness. The majority of responders (90.3%, N = 56) very strongly agreed, strongly agreed, or agreed that developmental course instructors provide a variety of activities to help improve skills (item 19). In item 20, 96.7% (N = 60) of students responded positively when asked if developmental course instructors are accessible for help with difficult concepts in developmental courses. A total of 95.1% (N = 59) of students strongly agreed or agreed that developmental course instructors positively impact their learning in developmental coursework. Students were then asked about their overall satisfaction with the effectiveness of the developmental education program; 90.3% (N = 56) strongly agreed or agreed that they were satisfied with the program.

The results of the student surveys yielded an overall positive response to the effectiveness of the developmental education program. The majority of students agreed that the developmental courses have met their educational needs, and made them more confident in their ability to obtain academic goals. Table 4.1 illustrates the survey questions pertaining to students’ perception of program effectiveness.

For survey items 23 through 34, students were asked to identify their perception of developmental education as it relates to the components of a successful developmental program. These components consist of mandatory assessment, mandatory placement, advising/counseling, tutoring, and evaluation (Boylan et al., 1997). Mandatory assessment refers to the evaluation of student skills prior to the initiation of coursework.
Table 4.1: Students' Perception of Program Effectiveness

<table>
<thead>
<tr>
<th>Survey Items</th>
<th>Strongly Agree (%)</th>
<th>Agree (%)</th>
<th>Neutral (%)</th>
<th>Disagree (%)</th>
<th>Strongly Disagree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My skills have improved as a result of taking developmental coursework.</td>
<td>46.8</td>
<td>41.9</td>
<td>6.5</td>
<td>3.2</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>N = 29</td>
<td>N = 26</td>
<td>N = 4</td>
<td>N = 2</td>
<td>N = 1</td>
</tr>
<tr>
<td>The skills that I have learned through developmental coursework will be</td>
<td>50.0</td>
<td>32.3</td>
<td>14.5</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>useful to me in the future.</td>
<td>N = 31</td>
<td>N = 20</td>
<td>N = 9</td>
<td>N = 1</td>
<td>N = 1</td>
</tr>
<tr>
<td>The objectives of developmental courses in which I have participated</td>
<td>56.5</td>
<td>33.9</td>
<td>8.1</td>
<td>0.0</td>
<td>1.6</td>
</tr>
<tr>
<td>meet my educational needs.</td>
<td>N = 35</td>
<td>N = 21</td>
<td>N = 5</td>
<td>N = 0</td>
<td>N = 1</td>
</tr>
<tr>
<td>Developmental coursework has made me more confident in my ability to</td>
<td>50.0</td>
<td>35.5</td>
<td>8.1</td>
<td>4.8</td>
<td>1.6</td>
</tr>
<tr>
<td>attain my educational goals.</td>
<td>N = 31</td>
<td>N = 22</td>
<td>N = 5</td>
<td>N = 3</td>
<td>N = 1</td>
</tr>
<tr>
<td>Developmental course instructors provide a variety of activities to help</td>
<td>51.6</td>
<td>38.7</td>
<td>6.5</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>me improve my skills.</td>
<td>N = 32</td>
<td>N = 24</td>
<td>N = 4</td>
<td>N = 1</td>
<td>N = 1</td>
</tr>
<tr>
<td>Developmental course instructors are accessible for help with difficult</td>
<td>53.2</td>
<td>43.5</td>
<td>3.2</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>concepts in developmental courses.</td>
<td>N = 33</td>
<td>N = 27</td>
<td>N = 2</td>
<td>N = 0</td>
<td>N = 0</td>
</tr>
<tr>
<td>Developmental course instructors positively impact my learning in</td>
<td>54.8</td>
<td>40.3</td>
<td>3.2</td>
<td>0.0</td>
<td>1.6</td>
</tr>
<tr>
<td>developmental coursework.</td>
<td>N = 34</td>
<td>N = 25</td>
<td>N = 2</td>
<td>N = 0</td>
<td>N = 1</td>
</tr>
<tr>
<td>I am satisfied with the effectiveness of the developmental education</td>
<td>53.2</td>
<td>37.1</td>
<td>4.8</td>
<td>1.6</td>
<td>3.2</td>
</tr>
<tr>
<td>program.</td>
<td>N = 33</td>
<td>N = 23</td>
<td>N = 3</td>
<td>N = 1</td>
<td>N = 2</td>
</tr>
</tbody>
</table>

Mandatory placement refers to automatic enrollment in a course based upon assessment of students’ skills. Students were first asked if mandatory assessment prior to placement in developmental courses is important; 83.8% (N = 52) strongly agreed or agreed with this
statement, while 4.8% (N = 3) of student strongly disagreed or disagreed. Students who provided neutral responses to this item accounted for 11.3% (N = 7). 85.5% (N = 53) of students responded that they had been placed in developmental courses as a result of a placement test. 12.9% (N = 8) of students responded negatively and 1.6% (N = 1) responded as neutral to this question. Mandatory placement was further evaluated by asking students to identify if mandatory placement in developmental courses helps students prepare for later coursework. 88.7% (N = 55) of students positively responded that developmental coursework is preparatory for subsequent college courses. Student who strongly disagreed or disagreed with this statement accounted for 4.8% (N = 3) of the responses, and 6.5% (N = 4) responded as neutral. Table 4.2 illustrates these findings.

Table 4.2: Students' Perception of Mandatory Assessment and Placement

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>Strongly Agree (%)</th>
<th>Agree (%)</th>
<th>Neutral (%)</th>
<th>Disagree (%)</th>
<th>Strongly Disagree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe mandatory assessment prior to placement in developmental courses is important.</td>
<td>43.5 (N = 27)</td>
<td>40.3 (N = 25)</td>
<td>11.3 (N = 7)</td>
<td>1.6 (N = 1)</td>
<td>3.2 (N = 2)</td>
</tr>
<tr>
<td>I was placed in developmental courses as a result of a placement test.</td>
<td>50.0 (N = 31)</td>
<td>35.5 (N = 22)</td>
<td>1.6 (N = 1)</td>
<td>4.8 (N = 3)</td>
<td>8.1 (N = 5)</td>
</tr>
<tr>
<td>I believe mandatory placement in developmental courses helps students prepare for later coursework.</td>
<td>48.4 (N = 30)</td>
<td>40.3 (N = 25)</td>
<td>6.5 (N = 4)</td>
<td>1.6 (N = 1)</td>
<td>3.2 (N = 2)</td>
</tr>
</tbody>
</table>

The developmental education program component of counseling and advising services encompasses enrollment guidance, academic goal development, and facilitation of academic progression. Students were asked to provide their perception regarding the use of advising and counseling services at the community college (Table 4.3). Of the survey responses, 69.4% (N = 43) strongly agreed or agreed that they were advised to take a developmental course by a counselor or advisor. Neutral responses totaled 22.6% (N = 14) of the item results, while 8.1%
(N = 5) of students responded negatively. Only 53.3% (N = 33) of students positively identified that they were offered advising or counseling through the developmental education program, while 33.8% (N = 21) of students strongly disagreed or disagreed that they had been offered advising or counseling. A neutral response was collected from 12.9% (N = 8) of the students. Students were then asked if they had participated in advising or counseling through the developmental education program. Only 43.5% (N = 27) of students expressed agreement with this statement. 41.9% (N = 26) of students denied participation in advising and counseling.

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>Strongly Agree (%)</th>
<th>Agree (%)</th>
<th>Neutral (%)</th>
<th>Disagree (%)</th>
<th>Strongly Disagree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was advised that I should take a developmental course by a counselor or advisor.</td>
<td>24.2</td>
<td>45.2</td>
<td>22.6</td>
<td>6.5</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>N = 15</td>
<td>N = 28</td>
<td>N = 14</td>
<td>N = 4</td>
<td>N = 1</td>
</tr>
<tr>
<td>I was offered advising/counseling services through the developmental education program.</td>
<td>19.4</td>
<td>33.9</td>
<td>12.9</td>
<td>16.1</td>
<td>17.7</td>
</tr>
<tr>
<td></td>
<td>N = 12</td>
<td>N = 21</td>
<td>N = 8</td>
<td>N = 10</td>
<td>N = 11</td>
</tr>
<tr>
<td>I have participated in advising/counseling services through the developmental education program.</td>
<td>16.1</td>
<td>27.4</td>
<td>14.5</td>
<td>25.8</td>
<td>16.1</td>
</tr>
<tr>
<td></td>
<td>N = 10</td>
<td>N = 17</td>
<td>N = 9</td>
<td>N = 16</td>
<td>N = 10</td>
</tr>
</tbody>
</table>

In the following items, students were asked about the availability of and participation in tutoring sessions provided as part of the developmental program (Table 4.4). Students who positively identified being offered tutoring through the developmental education program accounted for 50% (N = 31) of the responses; 35.5% (N = 22) of students denied being offered tutoring. A total of 14.5% (N = 9) of students were neutral on this question. Students were then asked to identify their participation in a tutoring service provided by the developmental program;
35.5% (N of students identified that they had participated in such a program. A total of 48.4% (N = 30) of students denied participation in tutoring.

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>Strongly Agree (%)</th>
<th>Agree (%)</th>
<th>Neutral (%)</th>
<th>Disagree (%)</th>
<th>Strongly Disagree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was offered tutoring through the developmental education program.</td>
<td>17.7</td>
<td>32.3</td>
<td>14.5</td>
<td>22.6</td>
<td>12.9</td>
</tr>
<tr>
<td></td>
<td>N = 11</td>
<td>N = 20</td>
<td>N = 9</td>
<td>N = 14</td>
<td>N = 8</td>
</tr>
<tr>
<td>I have participated in tutoring through the developmental education program.</td>
<td>16.1</td>
<td>19.4</td>
<td>16.1</td>
<td>29.0</td>
<td>19.4</td>
</tr>
<tr>
<td></td>
<td>N = 10</td>
<td>N = 12</td>
<td>N = 10</td>
<td>N = 18</td>
<td>N = 12</td>
</tr>
</tbody>
</table>

The student survey also assessed if students were provided an opportunity to participate in evaluating the developmental program or courses. 66.2% (N = 41) of students positively acknowledged an opportunity to provide program or course evaluation, while 21% (N = 13) stated they were not provided such an opportunity. This resulted in 63.3% (N = 39) of students responding they strongly agreed or agreed that they had participated in evaluation of the developmental education program or courses; however, 20% (N = 12) of students denied participation in program or course evaluation.

Students were then asked to assess the impact of their evaluation (Table 4.5). 75.8% (N = 47) of students stated that their evaluation had an impact on the developmental education program or course. The results presented that 6.4% (N = 4) of students disagreed with the impact of evaluation. Neutral responses accounted for 17.7% (N = 11) of results.
Table 4.5: Students' Perception of Program Evaluation

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>Strongly Agree (%)</th>
<th>Agree (%)</th>
<th>Neutral (%)</th>
<th>Disagree (%)</th>
<th>Strongly Disagree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have been provided an opportunity to evaluate the developmental education program or course.</td>
<td>21.0</td>
<td>45.2</td>
<td>12.9</td>
<td>12.9</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>N = 13</td>
<td>N = 28</td>
<td>N = 8</td>
<td>N = 8</td>
<td>N = 5</td>
</tr>
<tr>
<td>I have participated in evaluation of the developmental education program or course.</td>
<td>27.4</td>
<td>33.9</td>
<td>17.7</td>
<td>12.9</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>N = 17</td>
<td>N = 21</td>
<td>N = 11</td>
<td>N = 8</td>
<td>N = 5</td>
</tr>
</tbody>
</table>

The final component of a successful developmental education program assessed through the student survey was the use of a centralized department. This refers to use of a single developmental education organizational structure as opposed to dividing developmental courses amongst respective subject matter departments such as developmental math as part of the math department. The results (Table 4.6) identified 66.1% (N = 41) of students were given information about developmental courses through a centralized department; however, 19.4% (N = 12) of students disagreed with obtaining information through a centralized developmental education department.

Table 4.6: Students' Perception of Centralized Department

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Strongly Agree (%)</th>
<th>Agree (%)</th>
<th>Neutral (%)</th>
<th>Disagree (%)</th>
<th>Strongly Disagree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was given information about the developmental education program and courses through one department rather than individual departments for each course.</td>
<td>16.1</td>
<td>50.0</td>
<td>14.5</td>
<td>8.1</td>
<td>11.3</td>
</tr>
<tr>
<td></td>
<td>N = 10</td>
<td>N = 31</td>
<td>N = 9</td>
<td>N = 5</td>
<td>N = 7</td>
</tr>
</tbody>
</table>
Open-Ended Survey Question and Student Interviews Results

The open-ended survey item and student interviews data were analyzed using ATLAS.ti (ATLAS.ti, 2010). *A priori* and “emergent” (Marshall & Rossman, 2006) categories were assigned to 13 documents, which included the open-ended survey item and the 12 transcribed interviews. Hermeneutic Units were developed in order to facilitate data analysis. Categories for coding were derived from the research questions which centered on students’ perception of the developmental education program effectiveness and the components of a successful developmental education program developed by Boylan et al. (1997). The *a priori* categories derived from the components of a successful developmental program included: mandatory assessment, mandatory placement, advising/counseling, tutoring, and program evaluation. The emergent categories developed through analysis included: institution selection, academic objectives, college preparation, and learning environment. Tables 4.7 and 4.8 illustrate the *a priori* and emergent categories and their associated sub-categories.

Table 4.7: A Priori Categories and Associated Sub-Categories

<table>
<thead>
<tr>
<th>A Priori Categories</th>
<th>Associated Sub-Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory Assessment</td>
<td>college readiness assessment, and placement test</td>
</tr>
<tr>
<td>Mandatory Placement</td>
<td>misplacement, upper-classmen enrolled, and voluntary enrollment</td>
</tr>
<tr>
<td>Advising/Counseling</td>
<td>advising/counseling services, faculty as advisor, orientation/seminar, and self-advised</td>
</tr>
<tr>
<td>Tutoring</td>
<td>lack of tutoring services, four-year institution and peer tutoring</td>
</tr>
<tr>
<td>Evaluation</td>
<td>improved skills, confidence, instructor interaction, positive statement, and negative statement</td>
</tr>
</tbody>
</table>

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Table 4.8: Emergent Categories and Associated Sub-Categories

<table>
<thead>
<tr>
<th>Emergent Categories</th>
<th>Associated Sub-Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution Selection</td>
<td>proximity, school size, previous college experience</td>
</tr>
<tr>
<td>Academic Objectives</td>
<td>transfer, grades, and program completion</td>
</tr>
<tr>
<td>College Readiness</td>
<td>secondary preparation, self-realization, and maturity</td>
</tr>
<tr>
<td>Learning Environment</td>
<td>technology, independent learning, instructor guidance, and positive</td>
</tr>
</tbody>
</table>

**Mandatory Assessment**

Analysis of survey data revealed that most students agreed that he or she was placed in developmental courses as a result of a mandatory assessment (See Table 4.2). Comments pertaining to mandatory assessment were made by students during the interviews. Within the *a priori* category of mandatory assessment, two subcategories emerged (See Table 4.7): college readiness assessment (6 instances) and placement test (9 instances). Students were asked why they were taking developmental classes; the majority of students responded that they were placed in developmental courses due to a test.

Two tests were used to assess students’ skills during the enrollment process. The majority of traditional students, recent high school graduates, were placed in developmental courses based on their performance on the ACT. According to the company’s website, “The ACT college readiness assessment is a curriculum and standards based educational and career planning tool that assesses students’ academic readiness for college (The ACT Test, 2013).” Student A (personal communication, March 19, 2013) stated, “I attend this school to get some math because I didn’t do my ACT’s too well. So after this I will transfer to (four-year institution).” When asked why she was taking developmental courses, one student explained,
“Because I did not score as high on the ACT (Student J, personal communication March 20, 2013).”

A number of the non-traditional students, whom are students returning to school later in life, took a test administered by the community college called the COMPASS test (ACT Compass, 2013). The COMPASS test is also constructed by ACT INC. and is used to evaluate students’ reading, math, and English skills. The results of these assessments are used to ensure students are placed in the appropriate level of developmental or college courses in the subjects of English, reading, and math. One student simply stated, “I didn’t do too good on the tests that we had to take . . . the COMPASS test” (Student L, personal communication, March 20, 2013). Another student stated, “I was good in English, but not so good in reading . . . we took the COMPASS” (Student G, personal communication, March 19, 2013).

Enrolling at a community college requires students to participate in mandatory assessments. The traditional students had typically taken the ACT before graduating high school, which is an evaluation of college readiness. Some students only enrolled at the community college to take developmental courses based on the results of this assessment. Non-traditional students were required to complete the COMPASS test upon enrollment at the community college. Due to recent policy changes in Louisiana’s system of higher education, developmental courses have been delegated to community colleges and eliminated from four-year institutions (Master Plan, 2012). The results of these mandatory assessments are critical because they determine where students enter higher education and at what level of coursework they may enroll.
Mandatory Placement

Survey data revealed that the majority of students believe that mandatory placement in developmental courses will be beneficial in future college-level coursework (See Table 4.2). After identifying segments of the text associated with the a priori category of mandatory placement, three sub-categories emerged (See Table 4.7). These associated sub-categories included: misplacement (1 instance), upper-classmen enrolled (1 instance), and voluntary enrollment (1 instance).

Students identified that they were placed into developmental courses, which included English, reading, and math, based on mandatory assessment. One student felt he may have been misplaced in a developmental course. He explained:

I needed, I think a high enough score to forego all of this but my score on my ACT was a little bit lower than it was supposed to be. . . I took the ACT once and I got a low score. I didn’t want to take the ACT again because I spent $70 on it and I didn’t want to spend another $70 on the ACT. . . I shouldn’t have been in developmental Math because it’s too easy, but it is what it is. (Student B, personal communication, March 19, 2013)

One student identified, in the open-ended survey question, that she was required to enroll in the community college to complete developmental courses before proceeding with the final courses required for a degree from a four-year institution. She explained her perspective on the developmental course placement:

To be honest, these courses have caused nothing but trouble for me. I am transferring in from (the four -year institution) as a senior but cannot take my remaining 5 classes because of a difference in developmental math. This not only is holding me back in my education, but in my career goals as well. I believe if your major does not really need a certain class you should not have to take it.

This student demonstrates how mandatory placement in developmental coursework did not preclude her from enrolling in courses unrelated to the developmental subjects. This student
could continue enrolling in college level courses not pertaining to the math. As a result, she is a senior enrolled in a developmental course.

Mandatory placement in developmental courses within the community college is the result of mandatory assessment; however, students could also voluntarily elect to participate in developmental courses if they feel unprepared for college level coursework in a particular subject. A student explained:

Whenever I took my Compass test to start here I made like a 97 in English, and like a 91 in reading and like a 35 in math. I had to take my first developmental course to be able to take some of the course that I have for this training and I took my first course developmental math 91 or 90 last semester. I went ahead and did this semester on my own because I have to take college algebra and I am real bad at math, but (the instructor) is real good at it. He helps me out a lot when it comes to those things. I have to go to Southeastern to take a college algebra course. What I learned in 91 is not going to have me ready for the college algebra course, you know because it’s just basic math. So I went ahead and took the second one so I could be ready to go for the college algebra.

(Student I, personal communication, March 20, 2013)

In this community college students could be placed in one of three levels of developmental math and English. A student placed in the lowest level must complete the remaining two levels in order to enroll in the college level course. This process could be costly to students financially and increase the amount of time needed to graduate. Mandatory placement is crucial because it attempts to place student in the appropriate level and help the student incrementally improve their academic skills (Boylan et al., 1997).

**Advising/Counseling**

Analysis of survey responses for advising/counseling revealed that the majority of students believed they were advised to take developmental courses; however, fewer students felt they were offered advising and counseling services, and even fewer students reported participating in advising or counseling through the community college (See Table 4.3). Advising and counseling was also discussed in the student interviews. Through evaluation of the student
interviews in alignment with the a priori category of advising/counseling, sub-categories emerged (See Table 4.7). These associated sub-categories included: advising/counseling services (12 instances), faculty as advisor (2 instances), orientation/seminar (2 instances), and self-advised (6 instances).

The sub-category of advising/counseling services emerged during student interviews. Students were asked to identify any opportunities for advising or counseling that had been offered to them through the institution. When asked what counseling they had received, one student stated “Not much. I haven’t really had any. Well at least not from this institution” (Student C, personal communication, March 19, 2013). Several students expressed the idea that they expected to receive such guidance after they had completed the developmental courses. One student stated, “I just assume that they would do that after I finish my Developmental Courses. I hope so” (Student D, personal communication, March 19, 2013). Another student reflected a similar sentiment, saying “It won’t be until next semester . . . that’s when I’ll be asking how to do it” (Student A, personal communication, March 19, 2013). A third student identified this same idea when stating, “I am just a freshman so I guess I have to get my courses, my developmental courses done in order to take the next step to get all the other courses” (Student D, personal communication, March 19, 2013). Students did express the desire to have guidance through counseling and advising services. Student D explained that she would like someone to say “Okay, this is your course; this is what you have to do.” These statements suggest that these students had not received academic advising from the community college to this point, but students are expecting more advising once they matriculate through developmental courses.
Two interviewed students identified an orientation or seminar as the advising or counseling services received. This orientation was attributed with providing information about the steps to take classes and how to get into a desired program. One student further explained their participation in a college skills class saying, “I have a college success skills class and it’s just the class helps me prepare for college. Like what I need to do, how much time I should take to study for a test or a quiz or whatever I have coming up; just try to study everyday if possible and prepare” (Student K, personal communication, March 20, 2013). Interviewed students did not identify any formal counseling or advising services through one department within the community college, in which the students had an opportunity to individually meet with an advisor or counselor.

The sub-category of faculty as advisor reflects the statements by several student in which they identified that developmental course faculty provided course and career guidance. One student stated, “. . . when I have a problem or ask them (instructors) about something and they help me out a whole lot. They ask me what my goals are, what I plan on doing” (Student H, personal communication, March 20, 2013). Another student further expanded on the role of the developmental faculty as advisors when she explained:

...if you have a question... they would sit down and help me. I’ve never been to college... I didn’t graduate high school so, I’m not like everybody else, they come in here and... they already have an idea of what colleges, I don’t. So my teachers more than welcome, they don’t mind sitting down and answering my not so stupid questions (Student I, personal communication, March 20, 2013).

These examples show that when asked about advising and counseling these students looked to the faculty to provide such services.

Students who identified seeking out advising/counseling independently of the school were coded as self-advised. This represents students who were actively seeking information
through research that included accessing school websites and contacting non-school personnel. Students frequently referenced having to find information on their own, saying “I haven’t really had any (advising/counseling). Just everything I’ve done on my own” (Student B, personal communication, March 19, 2013) and “Actually, I was looking at it today on the website or their pre-reqs, what’s needed” (Student B, personal communication, March 20, 2013). Another student described how she found information about her desired career field, stating “I was looking on the Internet about pharmacy tech and stuff like that and how it’s always growing” (Student C, personal communication, March 19, 2013). One student described her intent to seek guidance from an outside source, “One of my cousin’s teachers is on the school board and she told me that whenever I graduated, I could go and talk to her because they are looking for ESL teachers. So I think maybe I could do that” (Student K, personal communication, March 20, 2013). These students actively searched and had the ability to find information about coursework, the curriculum, and planning out their academic career.

When examining the counseling and advising components of the developmental education program, the researcher noticed that many students seemed to report a lack of guidance or relied on instructors to provide counseling and advising. Some students reported finding information on their own through the use of the school website. The researcher noticed that some students said they were not provided the information on what to do after developmental courses were completed or how to transfer to a four-year institution. While others stated they could find all of the information on their through Internet websites.

**Tutoring**

Survey data for tutoring indicated that less than half of the students were not offered, nor participated, in tutoring provided by the community college (See Table 7.4). Tutoring services
were also discussed in student interviews. The *a priori* category of tutoring was evaluated using two associated sub-categories that emerged (See Table 4.7). The sub-categories included: lack of tutoring services (9 instances), four-year institution (3 instances) and peer tutoring (2 instances). Interviewed students more frequently referenced a lack of available tutoring services than opportunity to participate in tutoring provided by the institution. Two students stated that they participated in tutoring which was available at the four-year institution at which they are dual enrolled. These services provided by the four-year institution included a writing center and a math lab.

The interviewed students often described a lack of tutoring sessions. When asked if they were aware of tutoring sessions or had participated in tutoring at the community college several students simply said “no.” One student stated, “. . . they don’t do those here so there is none” (Student L, personal communication, March 20, 2013). Another student expanded on this idea of lack of awareness or availability of tutoring services at the community college by saying:

I am middle-aged and need the help even more . . . in many ways. Tutoring is something new to me . . . I had to hire someone and pay $15 an hour until she could no longer tutor. I then sought tutoring someplace else and they each wanted $25 an hour! (Student J, personal communication, March 20, 2013).

This student reported having to hire a private tutor due to the lack tutoring services provided by the community college.

A student who was enrolled in both the community college and a four-year institution explained his own lack of participation in tutoring, stating, “they offer tutoring classes. . .there is a sign that says tutoring if you want to get it. . . but right now I think I’m doing pretty good” (Student B, personal communication, March 19, 2013). Another student also acknowledged the availability of tutoring at the four-year institution. The student stated, “Not here (the community
Two students discussed peer tutoring within the developmental courses. Peer tutoring was identified by one interviewee in which the student stated, “I haven’t participated in any tutoring sessions but I have helped a lot of my friends that are in this program with their math” (Student B, personal communication, March 19, 2013). Another student discussed her experience in helping and being helped by her peers in developmental courses. She stated:

   Somebody in the class that needs help; another student says, “Oh I know how to do that,” . . . I know from my experience if somebody else around my age teaches me, I love it . . . if somebody else knows it in the classroom and they’re willing to help the next person (Student E, personal communication, March 20, 2013).

The predominant perception of tutoring services appeared to be a lack of awareness of available tutoring services, especially at the community college campus. Students who were dual enrolled at a four-year institution and the community college had access to the resources of the four-year institution, which included a writing and math lab. The students enrolled only at this community college did not have access to those resources. In fact, the students at the community college reported a complete lack of tutoring available other than asking the course instructor for help or peer tutoring. The component of tutoring may cost extra money for the institution but is essential to student success and retention (Boylan et al., 1997).

Evaluation

Survey data suggests that the majority students participating in the developmental program at this community college were provided an opportunity to evaluate the program. The survey data also revealed that most of the developmental students participated in an evaluation of developmental program, and the students believed that their evaluation had an impact on the program (See Table 4.5). Evaluation was also discussed during the student interviews. This a
priori category of evaluation was aligned with data that included the open-ended survey question and student interviews. Associated sub-categories that emerged during the analysis included (See Table 4.7): improved skills (39 instances), confidence (9 instances), instructor interaction (6 instances), positive statement (9 instances), and negative statement (4 instances).

Students who participated in this study frequently had a positive response when asked to evaluate the developmental education program. Improved skills were identified as a common perception of the studied population. Several students stated, in the open-ended survey item, that the developmental coursework helped to improve their academic skills in preparation for additional college work. Such statements include, “It has helped me be better prepared for college Algebra,” “Preps people for more advance courses,” and “It has strengthened my skills for college classes.” Students also discussed how developmental coursework refreshed concepts learned in high school, saying “I’ve started to understand things that I had some issues with in the past,” “I relearned all the forgotten material I previously learned in high school,” and “This has helped me gain a higher understanding in math that I couldn’t achieve in high school.” One student stated “It teaches you basic steps before you get to the hard steps.” This identified the idea of developmental coursework serving as a foundation for learning. Another student explained an unintended benefit she has obtained from developmental courses as “Now I’m able to help my teenager with his homework.”

Students referred to the developmental courses as giving them confidence in the skills they were learning as well as their ability to apply the information in the future. One student described his transition from being intimidated by the material to developing an understanding of the coursework:

Last semester when I first looked at it…it just made you go cross-eyed but now when I look at it I’m not so intimidated by it because I know something. That’s what I like about
it; I’m not as intimidated as I used to be. (Student I, personal communication, March 20, 2013)

Responses to the open-ended questions reflected increased student confidence, as seem in such statements as “My developmental math class has erased my fear of math,” “I feel more confident . . . working out math problems,” and “helped me be more confident and understand what I need to know . . .” One student stated, “I am more confident in my writing skills and am proud of my progress.” These statements reflect a positive outcome of the developmental program at the community college. The students believed their academic skills had improved and they were more confident in their abilities.

Instructor interaction was discussed by some of the interviewed students in evaluation of the developmental education program. Providing more instructor interaction was one of the main critiques of the developmental program. When asked how the program could be improved, one student stated, “A little bit more hands on, when it comes to like the math. A little bit more hands on teaching, a little bit more communication from the teachers” (Student C, personal communication, March 19, 2013). One student provided a similar sentiment saying, “actually getting up at the board teaching. Giving us homework, giving us extra work for us to do and, um, explaining, that would be nice” (Student L, personal communication, March 20, 2013). These students expressed frustration with the computer-based instruction and wanted more teacher-guided class instruction.

Negative comments were recorded with-in open-ended survey questions. One student simply wrote, “(it’s just) another class. What else to say?” This reflects an idea echoed by other students in the study. Another student stated:

I personally do not like the dev (developmental) classes. I feel like I don’t need these classes for my education. It is a waist (sic) of time because I’m dealing the simple math
and English. I wish we didn’t have to take the classes that we do. I just want to finish as soon as possible and these classes are holding me back.

Another student wrote, “My course is all online, through the Platoweb website. Personally, I am not satisfied with this type of learning.” In these comments expressed in the open-ended survey represent students’ expressed discontent with the developmental program. One student felt he was wrongly placed in a developmental class, while the others express discontent with the curriculum and the lack of substance.

The majority of students provided positive feedback upon evaluating their participation in developmental courses; however, some students stated criticisms based on their experience. While students did believe the program improved their skills, some students thought that more teacher guidance and instruction is needed. Students also reported positive outcomes such as an increase in confidence and improved skills; however, some students stated that the developmental classes were simply another obstacle to overcome in order to achieving their academic goals.

**Institution Selection**

The development of the emergent category of institutional selection occurred through the analysis of student interviews. Three associated sub-categories, created through investigation, included (See Table 4.8): proximity (6 instances), school size (4 instances), and previous college experience (2 instances). Interviewed students clearly identified that their selection of this academic institution hinged on one or more of these three identified codes.

Proximity was the most frequently identified guiding factor in school selection, both in terms of nearness to students’ homes as well as closeness to four-year institutions for transfer. Student D (personal communication, March 19, 2013) stated, “I just looked it up…a community college in my area” and “It was closer to home.” Another student provided additional
information, saying “This is the closest school here. It’s also next to (four-year institution), so if I transfer” (Student G, personal communication, March 19, 2013). Student E (personal communication, March 19, 2013) stated, “It was closer to home and I didn’t really want to go to Baton Rouge. I did but I was like, no, it’s too much gas and I work in Hammond.” Student C (personal communication, March 19, 2013) contributed, “I didn’t want to go to Baton Rouge so this was closer so I chose this school.” These students explained that the closeness to where they live was an important factor in choosing this institution. One student also noted the proximity to the four-year institution as a factor. This demonstrates the important role that community colleges play in providing students with access to higher education within the local community.

School size was frequently referenced as a deciding factor in institution selection. During interviews, Student F (personal communication, March 19, 2013) stated, “I don’t like big schools.” The Student F further explained her perspective, saying “…it took five years to go to college, so when I first decided to go, I came (here) because it’s a small school.” Student E (personal communication, March 19, 2013) also compared the community college to a local four-year institution” . . . it (the four-year institution) was too big for me.” This also speaks of the important gateway that the community college provided for many students. Community colleges provide an incremental transition from secondary to higher education that can provide a more comfortable learning environment for students (Cohen & Brawer, 2008).

Previous college experience also seemed to play a part in the institution selection process for interviewed students. Student H (personal communication, March 20, 2013) explained, “I had attended a week before that, didn’t too much like it so I came here and I’ve been doing good ever since.” Another student described their previous college experience by saying “Because I took developmental courses before and that didn’t work out there, so because I went to (four-
year institution) so I decided to go here because it will probably be easier” (Student J, personal communication, March 20, 2013). These students expressed that due to their previous experience at a four-year institution, they determined that the community college would be a better fit for them. The researcher noted that one student perceived that the community college would be “easier” compared to the four-year institution (Student J, personal communication, March 20, 2013). The idea that community colleges do not provide the same academic rigor is one that has been debated within the higher education community (Perin, 2006).

When asked why they chose to attend the community college, students stated three primary reasons. The first reason provided was proximity, which the researcher defines as an area in which the students are familiar or live. The second reason identified, school size, explains that some students chose to attend the community college because it provided a smaller class sizes and campus, which made the students feel less intimidated. The final reason students claimed was previous college experience. Some students stated they initially enrolled at a four-year institution; then based on their experience chose to transfer to the community college. These themes identified factors effecting why students chose to attend this community college and serve to demonstrate multiple benefits of the community college system in Louisiana as perceived by students entering higher education.

**Academic Objectives**

The development of the emergent category of academic objectives occurred through the analysis of student surveys and student interviews. Students’ academic objectives were discussed within the student survey as well as throughout the student interviews. Four associated sub-categories, developed through investigation, included (See Table 4.8): transfer (10 instances), grades (4 instances), and program completion (4 instances).
The idea of transferring from the community college to a four-year institution was communicated by multiple students. Student A (personal communication, March 19, 2013) stated, “after this (community college), I will transfer to (four-year institution).” Several students remarked the desire to obtain a bachelor’s degree, which would require attendance at an institution other than the community college. Student K (personal communication, March 20, 2013) explained, “After I graduate, I want to get my bachelor’s”, and “My plan is to finish my associate here and go back to (four-year institution) and finish my master’s.”

Several students focused on the objective of obtaining a high grade point average. Student A described her goal as “to get the highest grades possible…so just try to get my grades up as much as I can.” Grades were further identified as a significant goal when another student stated “…go for a 3.0 or above, a 3.8 if I can.” Student B (personal communication, March 20, 2013) stated, “I want to do what’s possible to make straight A’s.” Several interviewed students described their academic goal as program completion, such as one student who identified her goal as to, “get out of here as fast as I can…learn as much as I can the sooner the better” (Student J, personal communication, March 20, 2013).”

Students also expressed their goals as obtaining an associate or vocational certificate, Student I (personal communication, March 20, 2013) said “I’m going for medical assistant” and “I want my associate’s.” Student I further described her goal as follows, “I want to get my associate’s in business and medical office technology and get out. I have a five-year plan. Two years to get the degree. Three years to work. Then save and buy me a house.”

The researcher noted that the majority of the students indicated either the desire to transfer to a four-year institution or to complete a bachelor’s program after finishing needed courses at the community college. This reiterates the idea of community colleges being an
important gateway into higher education, and particularly for students in need of developmental education whom are required to enter higher education through the community college system. This section also demonstrates the dual role of providing entry-level college coursework while at the same time providing vocational programs. Some students identified a vocational certification program as their academic goal, while other wanted to graduate with an associate’s degree and enter the workforce. Community colleges have a pivotal role in Louisiana’s higher education system by not only preparing the students for transfer to the four-year institutions, but the workforce as well.

**College Readiness**

The development of the emergent category of college readiness occurred through the analysis of student interviews. Five associated sub-categories, created through investigation, included (See Table 4.8): secondary preparation (16 instances), self-realization (7 instances), and maturity (12 instances).

Secondary preparation was the most frequently discussed sub-category during the student interviews. Students expressed views on how high school prepared them for college in terms of overall preparedness, rigor, and teacher quality. When asked how high school prepared the interviewees, one student explained, “really didn’t help me much. They told me the exact opposite of how college was going to be” (Student B, personal communication, March 19, 2013). The student further explained that due to a lack of rigor the student felt underprepared for college. Another student described their high school preparation by saying, “A lot of them, like math, was kind of real easy in high school. I got here and I started becoming more acclimated with college math and it was a little bit more difficult” (Student C, personal communication, March 19, 2013). Student D (personal communication, March 19, 2013) expressed her feelings
on secondary preparation in stating, “I wasn’t very book smart or anything, I kind of played around so, I really honestly wished they would have pushed college a little more.” Students revealed in these statements that a more rigorous secondary education would have been beneficial.

While most students expressed a lack of preparation on the part of their secondary education, several students identified their high school experience as providing a strong foundation for their college pursuits. One student described her preparation as follows, “It’s been a while since I’ve been in high school. It did prepare me a whole lot. I was taking up a lot of classes in high school . . . and I passed, you know, I did pass and graduate and everything. It prepared me a lot” (Student H, personal communication, March 20, 2013). High school instruction was described by one student as “too easy,” and when asked to expand on this, the student replied, “It was the teachers (Student C, personal communication, March 19, 2013).” This student also expressed a lack of interest by high school faculty, saying “The faculty wasn’t really that interested. It’s like they just came for the paycheck.” These statements demonstrate the difference types of experiences that students have in secondary education and how it prepared them for college.

Self-realization was a repeated sub-category within the emergent category of college readiness. Self-realization is defined by the researcher as recognition of the importance of education through self-focused growth. One student stated:

I had bad grades, I didn’t pay attention, I wasn’t thinking what was going to be next, but my junior year because…my friend had asked me…what are you going to do next? And I was like, what am I going to do next? That’s when it hit me that I wanted to be somebody in life and I decided to go to college (Student A, personal communication, March 19, 2013).

Another student expressed a similar sentiment when saying “. . . I didn’t care then as I got older I was like, oh I need a degree” (Student E, personal communication, March 19, 2013). Several
students seemed to develop a perception of increased significance of college and its impact on their future life. The code of maturity was a common topic within the theme of college readiness. Multiple students referenced parenthood as being a turning point in their view of education’s worth. One student explained how high school prepared the way for college as:

I quit high school at like 16 and I didn’t go back and get my GED until my daughter started kindergarten because I didn’t want to make her do something that I wouldn’t even do myself. So I went back when she started kindergarten and I got a GED. So high school didn’t prepare me for nothing but life. Not in a good way (Student I, personal communication, March 20, 2013).

Students expressed ideas such as, “When I was younger I just couldn’t get it” (Student E, personal communication, March 19, 2013) and “With a lot of years and hormones between me and high school, I find that I can better retain information” (Student D, personal communication, March 19, 2013). Student I elaborated on the idea of age and college readiness, saying:

I’m like 42. . .whenever we were in high school at that point in time it’s like each generation has their thing to do. One generation everybody was about going to school, then our generation was about messing up and not really cared about what the future held, just cared about that moment. That was just strictly bad decision on my part. . .It’s like I see the kids here at school now like high school kids, going like did better on a test than me…it’s because I’m disciplined now. I said if I was your age and put in here, I’d be doing the same stuff that ya’ll are doing. . .As you grow older you just figure out what’s more important.

One student offered a perspective that seemed to reflect the views of several interviewees. When asked if high school experience prepared them for college, the interviewee stated, “It’s just at the time, I was more immature. It was just a fact that I probably didn’t want to learn” (Student K, personal communication, March 20, 2013). One student stated, “I didn’t take hardly nothing serious in high school. Now I’m taking that very seriously” (Student E, personal communication, March 19, 2013). This student reflected the sentiments of another student in recognizing as she matured she became more focused and realized the importance of education, which she failed to realize in high school.
Through analyzing the data, the researcher detected a difference that emerged between traditional and non-traditional students. The traditional students tended to speak more negatively of their secondary school experience in regarding college readiness. The non-traditional students spoke more positively about their level of preparedness provided by their secondary education. Most students identified that there was turning point when they realized the importance of being committed to their studies. The non-traditional students and some traditional students contributed this enlightenment to maturity. Students in general took responsibility for their lack of college readiness; however, some stated that their secondary education failed to prepare them for college. In the following chapter the researcher will examine how this data ties to Baxter Magolda’s (1992) research on epistemology.

**Learning Environment**

The development of the emergent category of institutional learning environment occurred through the analysis of student interviews. The category of learning environment, meaning the classroom setting and subject delivery, was evaluated in the student survey and student interviews. Four associated sub-categories, created through investigation, included (See Table 4.8): technology (12 instances), independent learning (16 instances), instructor guidance (13 instances) and positive (4 instances).

The interviewed students frequently discussed technology. The developmental courses use a computer based software system, Plato, which facilitates course instruction and monitors student progress (Plato Courseware, 2013). Students are allowed to progress through the program at their own pace and instructors in the classroom provide supplemental assistance and access to course assessments. Students discussed both the positives and negatives of using a self-guided software system as a primary source of instruction for the developmental education
courses. One student expressed that the computer-based system does not meet her learning needs saying, “I’m not the type of person to learn from a computer. I have to have someone sitting up there actually teaching me and they don’t do that. So, it’s not really helping me much. I’m just clicking things” (Student L, personal communication, March 20, 2013). This student provided another example stating, “during my pre-test, I got some problems correct (by chance) and I ended up being exempt from doing those types of problems, yet when I took my test, I was very unfamiliar with this type of problem and was confronted with several at a time. This caused me to fail the test.” Some students prefer the use of the computer-based system, stating, “This program is awesome because I’m not disciplined at all but I can sit there with that program and teach myself” (Student I, personal communication, March 20, 2013). Students commonly discussed concerns about the network “going down” and “bugs” in the program, but attributed this expected problems with technology rather than instructional issues. The researcher noted that some students were satisfied with the computer-based instruction, while other struggled and wanted a more traditional teacher lead instruction.

The concept of independent learning was the most frequent category within the learning environment theme. This learning environment provided computer-based instruction, which allowed students to work independently with limited student-teacher interactions. One student stated, “They (teachers) just said for us to sit at the computer and work at our own pace” (Student L, personal communication, March 20, 2013). Another student expressed a similar idea by saying “The experience is pretty good, seeing that everything is online and you can do things on your own computer, finish the test at your own pace” (Student G, personal communication, March 20, 2013).
During the interviews, students suggested that the role of the instructor was secondary, while a computer program provides the primary source of instruction. One student suggested, “Basically, it’s like, you’re not on your own, but, the computer teaches you so (instructors) really don’t have to do too much unless you really don’t understand and then (instructors) stand there and explain it and stuff like that” (Student I, personal communication, March 20, 2013). Another student stated, “If (instructor) sees that we are struggling and we can’t figure out what it is that we have to do, (instructors) give us homework, then we’ll bring it in and we’ll go over it. (Instructor) makes sure that we understand it so when we take the test we are prepared and everything for it” (Student L, personal communication, March 20, 2013). This learning environment allows multiple levels and subjects of developmental classes to be scheduled at the same time. The instructor monitors the students’ progress, helps students with difficult concepts, and provides access to assessment when the students feel they are ready. This also allows students to work faster or slower as needed within classes taught to students exclusively attending the community college.

These statements illustrated the independent nature of the developmental courses, in which the primary source of instruction is facilitated through the Plato program. Instructors in the lower level developmental courses provided as needed assistance for students. The upper level developmental courses were conducted in a more traditional structure with teachers as the primary source of instruction. The code of instructor guidance developed and explained how instructors aided students. One student explained, “. . . during class I can talk to (instructor) or after class if I really feel like I’m struggling I can go up to (instructor) and tell (instructor) like, “Hey, can you re-explain this again,” and (instructor) will explain it again” (Student K, personal communication, March 20, 2013). A student also elaborated, “teachers, several of them actually,
do have concern about how you’re progressing and how fast” (Student G, personal communication, March 20, 2013).

Upon reflection of the learning environment, students frequently provided positive statements. Students explained, “It’s great. It’s going awesome. It’s really good.” Students in the upper level course and lower level courses provided primarily positive statements; however, the negative statements tended to come for students in the lower levels. In the lower level courses, non-traditional students tended to respond more favorably towards the computer-based independent instruction provide through the Plato program. The traditional students were more critical of this learning environment and express a need for more traditional teacher-lead classes. This also can be examined through the epistemological model and will be further discussed in a later section.

**Summary**

The researcher explored student beliefs and attitudes regarding the effectiveness of developmental education in a community college. Boylan et al. (1997) identified the components of successful developmental educational programs as mandatory assessment, mandatory placement, counseling/advising, tutoring, program evaluation, and centralized department structure. Students were asked to provide their perception of the how the institution has achieved these components by completing a survey. Face-to-face interviews further explained students’ interpretation of the components of a successful developmental education program, as well as a deeper understanding of the students who participate in this developmental program.

Literature on the effectiveness of developmental education suggests that programs are effective in improving students’ skills; however, Tinto (1993) suggests that approximately one-
half of students entering community colleges fail to continue their studies past the first year. In a more recent article, Adrienne Lu (2013) reported “only 28 percent of two-year college students who took at least one developmental course earned a degree or certificate within 8.5 years.” Pascarella and Terenzini (2005) claimed that developmental courses are “at least modestly effective in helping student overcome deficiencies in their pre-collegiate academic preparation and associated disadvantages (p. 398).” Cohen and Brawer (2008) found that few developmental programs in community colleges are evaluated in a regular and systematic manner and the results suggest varying effects. The previous research is based primarily on test scores, grade-point average, and retention data; however, research focusing on rating student satisfaction and student’s perception are rare. This research assessed the effectiveness of developmental programs in higher education from the students’ perspective.

The researcher collected background data through the use of a survey. The demographic information was used to describe the gender and age of study participants, as well as the type of secondary education the students received before attending the community college. In conjunction with the survey demographic data, during the interviews, students were asked about their secondary school experience and the students’ perceptions of the post-secondary preparedness.

The majority of students that completed the survey were considered traditional students between the ages of 17-24; however, student ages ranged from 25 to 41 and older. The researcher ensured that both traditional and non-traditional students participated in the interview component of the study. The majority of students that completed the survey identified themselves as a racial minority, with African American being the largest participating minority group. Additionally, women participants outnumbered their male counterparts. This data
corresponds with national data that states more minorities and women participate in remedial education in community colleges (Sparks & Malkus, 2013). Students with a lower socio-economic status and first-generational students are also more likely to participate in developmental education according to national data. Community colleges serve a diverse student population, including more non-traditional students and students of varying ethnic background (Community College Fact Sheet, 2012). Nationally, the average community college student is 28 years of age, and 45% of the student body is between the ages of 22 and 39. Students who are enrolled full-time in coursework while working part-time make up 50% of the population, while 40% of students are enrolled part-time in coursework while working full-time. Women currently make up 57% of the American community college student body. Ethnic minorities account for 46% of the community college population.

During the interviews, students where asked why they chose to attend the community college that was studied. The students tended to respond that the location of the school played an important role in their decision. These answers suggest that the students were from the local community and it was an economical decision. Another reason students chose to attend this institution was the proximity to the local four-year institution, particularly for students who were dual enrolled and were attending the community college only to take developmental courses. Some students stated that the size of the school (i.e. physical campus size and class size) persuaded them to them enrolling in this institution. The interview data provided insight into the students’ decision to attend this institution. Some students were concerned about the financial cost of attending an institution outside of their community, while other wanted a school that was less intimidating as they transitioned into higher education.
Most of the students that participated in the study graduated from high school, while only six students reported completing a GED. The majority of these students graduated from public high schools with a few attending private schools or being home-schooled. Furthermore, most of the students that participated in the study reported that they had never attended college and that the community college provided the entry point into higher education. When asked about their college readiness pertaining to their secondary education, a division between the non-traditional and traditional students occurred. The non-traditional students gave positive responses to their secondary school and accepted personal responsibility for being underprepared, while the traditional students tended to place all or part of the blame on their secondary school (i.e. teachers, curriculum).

Participants were asked to provide their academic rank. The majority of students stated that they were freshman and sophomores; however, there were students who identified themselves as juniors and seniors. These upperclassmen reflect students who were taking courses, and continue to take courses, at a four-year institution, but due to policy changes must also enroll at the community college to complete developmental courses.

The students were asked to identify their intended program of study. This reinforced the previous stated academic goals by allowing the researcher to compare the stated program of study to the programs actually provided by the community college. This information demonstrated the students’ knowledge of the programs offered at the community college. Furthermore, it demonstrated the students’ realization that they would have to continue to a four-year institution in order to obtain those stated goals. In comparing these questions, students appeared to be informed of the opportunities available at the community college and what
programs would require them to transfer to a four-year institution. In summary, the students’ stated academic goal corresponded to their stated programs of study.

The survey assessed the student perception of the developmental program, specifically focusing on the components of a successful developmental program as defined by Boylan et al. (1997). Students that participated in the survey and the interview stated they were placed in developmental courses as a result of a standardized test. The component of mandatory assessment was achieved through students being required to complete the ACT or COMPASS test upon admittance into the post-secondary institution. The students also stated in the surveys, and confirmed in the interviews, that they were required to enroll and successfully complete such courses before being allowed to enroll in the college-level courses pertaining to the subject in which they were found to be deficient. Students were; however, allowed to enroll in college-level courses not pertaining to the subject matter in which they were deemed unprepared.

Students in both the survey and the interview stated that the developmental courses were providing positive learning outcomes. The majority of students stated that the developmental courses had improved their skills and had met their educational needs. Students also believed that the developmental courses had increased their confidence in their academic ability and had prepared them for future college-level courses.

The surveyed revealed some that the majority of students thought they were provided counseling or advising services about enrolling in developmental courses at a community college. When asked if they were offered advising and counseling through the developmental education program a larger minority of students tended to disagree; however, more people did respond positively to the statement. A larger number of students disagreed with the statement that indicated student participation in advising or counseling. During the interviews, some
discrepancies occurred that revealed how students interpreted counseling and advising. Students were asked about advising and counseling in developmental education. Students tended to state that instructors or clerical staff was the main source of advising and counseling. The researcher then questioned about how the community college had advised students about attaining their academic goals or the necessary steps to transferring to a four-year institution. Students emphasized that they had not received that information from the community college, but voiced that they expected to receive this information and advice after completion of the developmental program.

According to survey and interview data, participants stated that there was a lack of tutoring available to the students who were attending the community college. Survey data revealed that a large portion of the student population was not offered tutoring services and a larger segment stated that they had not participated in tutoring through the developmental program. During the interview, it was revealed that students who were dual enrolled in the community college and a four-year institution did have tutoring options available to them through the four-year institution; however, this service was not available to community college students. One of the students interviewed stressed that she struggled to pay for outside tutoring and was actively looking for extra help outside the classroom environment. She was not aware of any tutoring available through the community college. This particular student also stated that even being able to find an available computer outside the schedule class time was also a challenge at the community college.

Students also responded agreeably to being provided and participating in program evaluation. Student surveys suggested that the developmental program provided adequate opportunity for students to provide evaluation. The interview data confirmed the survey results
and students stated that the program provided useful and meaningful instruction. When students were asked how the developmental program could be improved, most students stated there was no need for improvements. There were a select few students who stated that there should be more teacher instruction instead of relying heavily on computer-based instruction. Research suggests that computer-based learning has its advantages (Boylan & Saxon, 2005). Developmental students that complete computer-based instruction achieve higher post-test and accomplish more student learning in less time. There is also cost efficiency for the institution in being able to have students in multiple courses utilizing the same instructor and computer lab at the same time. While the community college can benefit from this delivery of instruction, this does not accommodate all students or promote the success of every student.

The A priori categories of mandatory assessment, mandatory placement, advising/counseling, tutoring, and program evaluation were derived from Boylan et al. components. The data collected in the interviews explained students’ interpretation of components, which in instances contradicted the survey results. The emergent categories of institution selection, academic objectives, secondary college preparation, and learning environment provided information about the students participating in the developmental program and paints a picture of the students and their experience.

In the initial evaluation of the data, discrepancies between the survey data and interview data emerge. In the a priori category of counseling and advising, survey data suggest that students were offered such services; however, a smaller majority of students agreed with the survey items in this area. During the interview, students were asked specific questions regarding advising and counseling. These responses revealed that each student interpreted those services differently and there was a lack of those services for students whom exclusively attended the
community college. Students A, E, and K all referred to a staff member as providing advising and ranked the community college highly on the survey; however, this is not providing trained counselors or advisors to the student. Students I and F provided positive and neutral responses in advising/counseling on the survey, but during the interview both students thought of the course instructor as their advisor/counselor. Student K explained that she received advising during a class she took at the four-year institution. When asked about advising or counseling, student B believed information she needed could be obtained through the institution’s website. These examples demonstrate the discrepancies that occurred between the survey and interview data. Students marked a survey item positive but through the interview a more negative interpretation was revealed. These examples demonstrate that these students may not have been provided advising by trained advisors. Students described advising as asking instructors for help or asking staff members for information. This does not correspond with The National Academic Advising Association’s (NACADA) description of academic advising, which they suggest should be based on the principles of student development theory and designed as a support system which assist students in successfully navigating post-secondary education (About NACADA, 2013).

The *a priori* category of evaluation and the emergent category of learning environment provided another instance of variance between the survey and interview data. Students C, D, E, J, and L all reported through the survey that evaluation was provided to them and the majority students responded positively to the developmental course. During the interview, these students did express negative aspects of the learning environment. Student D explained that one program lacked tutorials, while others thought the program did not fully explain the concepts. Student L said she would prefer to have more teacher-guidance or teacher-led instruction. This discrepancy
provides insight into areas in which students believe developmental education could be improved, while at the same time believing that the program is beneficial.

The emergent categories were developed through the analysis of the open-ended survey question and the student interviews. These categories helped the researcher better understand the students participating in the developmental program. The emergent category of college readiness in particular contributed to negative sentiment in the interviews. Some students, especially traditional students (B, C, E, F, I, and L) spoke negatively of their secondary education experience. Students F, I, and L also seem to take little responsibility for their lack of college preparation during secondary school; however, Students B and E did state that they regret not putting forth more effort academically. The non-traditional students (A, D, H, J, and K) took full responsibility for their lack of college readiness, and contribute a greater maturity for their current academic success. One non-traditional student differed from the others and reported that his secondary education did not prepare him for college and expressed his belief that his teachers did not care. This emergent category, developed through analysis of the interviews, provided an opportunity to further understand the students whom are enrolled in this developmental education program.

While most of the traditional students believed that they were provided a poor secondary education, some did take personal responsibility for their low level of college readiness. In contrast, all but one of the non-traditional students took full responsibility for their low level of college readiness. The \textit{a priori} categories provided an opportunity to understand students’ interpretation of the components of a successful developmental program, while the emergent categories further explain students’ academic backgrounds and experiences. By delving further
into students survey responses in comparison with interview data contradictions can be evaluated.

In the following chapter, the researcher will summarize the debate and research surrounding developmental education and the role community college play in ensuring open access while maintaining academic standards. The researcher will analyze student responses through Baxter Magolda’s (1992) Epistemological Model, as well as discuss implications for community college students, instructors, and administration. Finally, the researcher will provide future inquiry needed in this important area of higher education.
CHAPTER 5
DISCUSSION

In this chapter, the qualitative findings will be discussed in association with literature on epistemology and effective developmental education. Additionally, considerations for ways in which this study may inform the research on developmental education at community colleges and how such programs may impact students will be discussed. Developmental education is a concept that attempts not only to improve the skills in which students are deficient, but also academic competence, so that the students may develop into life-long learners (Higbee, 2012). This definition of developmental education focuses primarily on the growth and development of students rather than exclusively on academic deficiencies. Developmental education in Louisiana is presently in a state of transition in which technical and community colleges have assumed an expanded role in higher education by providing developmental education to all underprepared students (Master Plan, 2011). This evolution, in conjunction with statistical data reflecting low retention and transfer rates from two-year to four-year institutions in Louisiana, demonstrates the need for more evaluation of developmental education programs in the community college setting (Board of Regents, 2011).

As discussed in the literature review provided in chapter 2, developmental coursework has long been debated within the higher education community (Kozeracki, 2002; Soliday, 2002). Some literature suggests that students enrolled in developmental courses are unfortunate victims of a failing secondary education system and are too underprepared to be admitted into four-year institutions (Harwood, 1997; Marcus, 2000; Trombley, 1998). Admitting students in need of developmental coursework into four-year institutions diminishes the academic standards of such institutions in order to allow these students to advance through college (Bennett, 1994; Traub, 1995). Such researchers suggest that developmental education should be eliminated from four-
year institutions, so that the students can be better served at the community college level. Others argue that developmental education is essential to ensuring that access to higher education remains open (Deil-Amen & Rosenbaum, 2002; Rosenbaum, 2001).

The latter view sees developmental education as providing an educational opportunity for minority students and students of low-socioeconomic status. Developmental education is an important access point for many students, and is of the utmost importance that these programs be effective in order to ensure that every American has an equal opportunity to achieve his or her academic goals. Since developmental education is currently being delegated to community colleges, it is essential for these institutions of higher education to utilize optimal methods to ensure that students receive the education and skills needed to be successful.

The purpose of this study was to evaluate students’ perception of the effectiveness of a developmental education program at a community college in Louisiana. Louisiana was chosen for this research due to its unique post-secondary education structure in which community colleges are relatively new, having been created in 1999. Based on the results of an evaluation of Louisiana higher education, developmental education has recently been delegated to community colleges, where it is believed to be more cost effective and more able to provide an appropriate learning environment for students deemed unprepared for college coursework (Master Plan, 2011). This study revealed how students interpret the developmental learning environment and services provided by the community college. The research was designed as a qualitative study that utilized a survey to gauge student perceptions, followed by one-on-one interviews to provide more in-depth data for this single-case study. Bounds included students enrolled in developmental coursework at a community college in Louisiana during the Fall 2012 and Spring 2013 semesters.
The researcher acknowledges the limitations of this study. The researcher has personal experience in developmental coursework at a four-year institution in Louisiana. The results of this study may be limited in application to other community colleges outside of Louisiana, due to the unique structure and the newness of Louisiana’s technical and community college system. The results can be applied to the community college that participated in the study; however, results may not be applied to other institutions within the same community college system.

**Epistemological Reflection Model**

The epistemological model posed by Baxter Magolda (1992) theorizes about people’s ability to understand and grasp difficult content and the ability to reason how this knowledge affects them. Baxter Magolda identifies that this understanding occurs in a progression. With this model, the researcher examined the students’ interview data of different ages. Non-traditional students provided positive statements about the computer-based, self-guided instruction. One non-traditional student stated that she observed the younger students who did not show up to class and were not progressing through the program and believed she would have done the same thing if she were their age. She stated, “they (younger students) don’t want to be discipline enough to sit down at the computer and teach themselves, they think (the instructor) should teach them everything, but that is not the point of this environment” (Student J, personal communication March 20, 2013). She contributed her age and maturity to her success in the developmental program and believed strongly that she was being prepared to achieve her academic goal. This illustrates the student developing to a “way of knowing” and increasing her knowledge. She believed that her life experience has enabled her to recognize the importance of education and she spoke with enthusiasm about being in college and continuing her education. This student diligently worked with the computer program in class and at home and was
progressing through the course quickly. This student provided a positive evaluation of the developmental program and believed the course was meeting all of her educational needs.

The traditional students were more critical of the computer-based instruction than the non-traditional students. They stated they would like more teacher-guided instruction and they were more critical, saying they thought the developmental course was a waste of time and they were not learning anything. One possible explanation for these responses is that these students had not progressed beyond absolute knowing of cognitive development that would allow them to be successful in a program that is predominately self-guided. Baxter Magolda (1992) found that students who are absolute knowers rely on a “receiving pattern” of learning, which depends on listening and receiving information rather than talking and asking questions. Some younger students may have not cognitively progressed beyond expecting instructors to transmit knowledge and ensure that the students receive it. By providing more teacher-guided instruction in conjunction with the computer-based instruction, the developmental program could help facilitate progression in students’ cognitive development.

Implications for Practice

The data revealed that the studied community college is deficient in the areas of advising/counseling and tutoring. These two components are crucial to student success (Boylan et al., 1997). In the perspective of students enrolled in developmental coursework, the community college studied lacked these services or failed to adequately communicate the availability of these services to students. Advising and counseling provides students with academic planning and a support system to encourage retention. When a lack of advising/counseling exists, students in developmental courses, who are more likely to be first generation, parents, and employed full-time, are left to figure out how to navigate this new
environment with little direction. This communicates to students that the institution is not invested in their success.

An effective advising/counseling program helps students create academic goals that culminate in graduation, certification, or transfer to senior institutions. Creating incremental goals allows students to experience success and fosters a bond between student and institution that promotes persistence. Effective advising/counseling also promotes self-advocacy, which allows students to learn how to promote themselves within higher education. This encourages students who transition to senior institutions to seek out programs that will be beneficial to their efforts and promote success.

Tutoring is another crucial component to success of students enrolled in developmental courses. The data revealed that dually enrolled students had access to tutoring services, while community college students did not have such services. Students in developmental courses primarily fall in the absolute knowing area of the epistemological spectrum. These students need instructor or peer guidance that could be provided through tutoring. This tutoring would need to encourage and foster critical thinking that promotes the philosophy of developmental education. This encourages students to apply knowledge and promotes epistemological progression. In order for the community college to see improvement in retention, it is imperative that investments be made in developmental education programs. Community college administrators should be aware of best practices for teaching in a developmental setting and provide students with the services needed for optimal student success.

**Implications for Students**

Developmental education in community colleges has increasingly become the gateway for higher education for students who have been deemed underprepared. In Louisiana, this trend
is relatively modern, with four-year institutions recently eliminating developmental courses. The community college system in Louisiana has responded by creating technical community colleges that have increased the role of the former technical schools to provide developmental and general education level college courses. The community college system and four-year institutions have also created transfer agreements to ensure that students can make the transition from the community college to the university as seamless as possible.

This single case study examined how students perceived a developmental program at a community college in Louisiana. The researcher found that overall, students had a positive response to the developmental program; however, differences were noted between traditional and non-traditional students. The researcher found that the evaluated program provided primarily computer-based instruction for lower level developmental courses. This benefits non-traditional students, who may need to accommodate the challenges of employment and family responsibilities. Traditional students felt that more teacher interaction was needed in the lower level courses. Students in the lower level courses may require more personalized instruction time and would benefit from a classroom with both computer-based and individualized instruction.

Bonham (1992) found that the effectiveness of computer-based instruction decreases if it is used as the primary source of instruction in developmental courses. Computer-based instruction was optimal when it was supplemental to regular classroom activities. If developmental courses are to be computer based, it is imperative that an instructor provide a critical thinking component to facilitate the developmental education philosophy. Instruction that encourages epistemological development by pushing students to think critically while improving fundamental skills is vital to a developmental education program.
The developmental classrooms that participated in this study provided a diverse group of students. Most classes were computer based with students enrolled in different levels within the same classroom with the same instructor. In one class, the instructor was also responsible for high school students who were participating in an online GED program. In this classroom, the instructor was responsible for monitoring and assisting high school students in addition to helping the students enrolled in the developmental courses. One suggested method for addressing classrooms with such a diverse group would be to utilize multiple instructional modalities that would accommodate different learning styles (Boylan and Saxon, 2005). This type of instruction would require extensive planning for the course instructors; however, this would accommodate the diversity of students in developmental classes while promoting critical thinking skills.

The environment in this study allowed students in multiple levels of developmental education to be in the same classroom; however, students worked independently without required interaction. High school students who were completing high school equivalency courses were also present in the developmental classroom. The computer-based instruction provided in the studied environment was the primary source of instruction, and placed the instructor into the role of monitor. This presents a challenge for instructors who have to balance managing high school students while assisting students enrolled in the developmental course. While this may be a financial benefit for the community college because the cost of the instructor is split with the K-12 system, the benefit comes at the expense of the community college students who have paid for the course and want more teacher-guided instruction.
Implications for Instructors

Many students felt that the instructors were accessible and provided additional instruction if needed; however, some students felt that the various courses taught in the same classroom and the presence of high school students distracted the instructor and made it difficult to provide assistance efficiently. In the open-ended response on the survey one student reported, “I feel the instructor is more focused on the high school population; therefore, he can’t spend as much time with me.” This example demonstrates a challenge for the developmental education instructors, and is one that must be addressed in order to ensure the academic success of all students.

Students also perceived the instructor as the main source of academic tutoring and counseling. One way to address this issue, would be to provide adequate tutoring services independent of the primary classroom instructor. If the instructors are going to provide this role, it is imperative that they receive adequate training on tutoring and advising of students in developmental courses. Instructors would also benefit from classroom management training on how to facilitate multiple groups of students on different levels of learning in one classroom. Community colleges must try to recruit faculty that are passionate about teaching developmental students. Bonham (1992) suggests that faculty trained in developmental student pedagogy increases the effectiveness of developmental education. It would be beneficial to the faculty to receive training in pedagogy and andragogy. It is not only important for the faculty to be experts in their respected fields, but equally important for the faculty to have knowledge of the best practices for teaching students.

Implications for Community Colleges

If community colleges in Louisiana are going to properly provide developmental education to students, these institutions must be willing to invest in their success. This would
include providing students more opportunity to receive tutoring through the institution, providing training to instructors, and increase access to computer labs (Boylan and Saxon, 2005). The community college must also invest in computer labs if classes are going to be computer-based. This would allow students who may not be able to afford a computer the opportunity to work outside of the classroom. Extended computer lab hours and computers labs specifically for allowing students to work course material would also be beneficial to students who may not own a computer or have access to reliable home internet service. With higher education budgets currently being cut, cost effective programs such as peer tutoring groups could affordably be facilitated through the instructor or institution. This would allow students to form a community and help each other through the developmental program. The community college could use peer groups and communities to aid students in a cost effective approach.

**Suggested Future Research**

This study contributes to the research on the effectiveness of developmental education in community colleges and how students perceive the program’s effect on improving academic skills. While the research presented here adds to the conversation of developmental education’s effectiveness in a community college, as well as the potential impact of the components of a successful developmental program on students, more investigation is needed.

There are questions that remain regarding the effectiveness of developmental educational programs at community colleges in Louisiana. It is recommended that a study be conducted to investigate developmental programs throughout the entire community college system in Louisiana. A multi-site developmental program evaluation could be conducted to evaluate consistency of application throughout the state’s community college system and the effectiveness of the developmental program as a whole. Finally, an additional recommendation is for a
longitudinal study of participants in developmental education programs to determine student attrition and persistence, focusing on developmental students who transfer to four-year institutions. As noted, a limitation of this study is that it only examined one community college in Louisiana. Therefore, conducting a multi-site program evaluation would be prudent. By conducting a longitudinal study, the effects of developmental education on student outcomes and persistence could be revealed.

In conclusion, developmental education programs provided by community colleges preserve the democratic ideology of American higher education by providing an open-admission policy that ensures everyone has an opportunity to improve their quality of life through education. In Louisiana, this democratic ideal is realized in its community college system; however, the studied institution within that system is failing to provide its students adequate services after gaining access. This community college must be more attentive to the needs of the students enrolled in developmental courses by provide advising/counseling and tutoring services. These services would allow the institution to effectively develop student who can meet the challenges of post-secondary education. The institution should provide students with teacher-led instruction and supplemental computer-based activities. It is important for the institution to provide online developmental courses in order to accommodate non-traditional students, but this option should not be offered at the expense of the developmental education philosophy that advocates for development of critical thinking skills. Teachers of developmental courses must be passionate about teaching and should have confidence in their students’ ability to be academically successful. Teachers need training in developmental education pedagogy and andragogy, as well as diverse classroom management. The community college administration must proactively research best practices for providing developmental education in order to allow
students to not only gain access to higher education, but also to provide students with the tools to be successful as well.
REFERENCES


Suen, H. (1979). Special services evaluation. *Journal of Developmental and Remedial Education. 3 (1).*


APPENDIX A:
STUDENT SURVEY

Purpose of the Study: This study is designed to investigate student perception of effectiveness of a developmental education program at a community college.

Survey instructions: Please complete this voluntary survey only one time. Your answers and the results of this survey will remain confidential.

Demographic Information

Please provide your email address: ________________________________________________________________

Have you previously completed this survey?  ☐ Yes  ☐ No

Gender:  ☐ Male  ☐ Female

Age:  ☐ 17-24

☐ 25-30

☐ 31-35

☐ 36-40

☐ 41 and older

Race:  ☐ White

☐ Black or African American

☐ Asian

☐ Hispanic or Latino

☐ American Indian or Alaska Native

☐ Native Hawaiian or other Pacific Islander

☐ Decline to Answer
**Education Background**

Do you have a high school diploma or GED?  
☐ high school diploma  
☐ GED

Did you attend a public high school, private high school, home-school, or GED program?

☐ public high school

☐ private high school

☐ home-school

☐ GED program

Have you attended a college or institution of higher education other than the one in which you are currently enrolled?

☐ Yes

☐ No

What is your current academic classification?

☐ Freshman

☐ Sophomore

☐ Junior

☐ Senior

☐ Unknown

What is your program of study? (Type “undecided” if program of study has not been determined at this time.)
In how many developmental education courses are you currently enrolled?

- 1
- 2
- 3
- 4
- 5 or more

How many developmental education courses are you required to take for your current program of study?

- 1
- 2
- 3
- 4
- 5 or more

How many developmental education courses have you completed prior to this semester?

- 1
- 2
- 3
- 4
- 5 or more

What is your academic goal? Identify degree goal and/or career plans.

[Blank space]
**Developmental Education Program**

My skills have improved as a result of taking developmental coursework.

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<th>Strongly Agree</th>
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<th>Disagree</th>
<th>Strongly Disagree</th>
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The skills that I have learned through developmental coursework will be useful to me in the future.

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The objectives of developmental courses in which I have participated meet my educational needs.

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Developmental coursework has made me more confident in my ability to attain my educational goals.

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Developmental course instructors provide a variety of activities to help me improve my skills.

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<th>Strongly Agree</th>
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Developmental course instructors are accessible for help with difficult concepts in developmental courses.

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Developmental course instructors positively impact my learning in developmental coursework.

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I am satisfied with the effectiveness of the developmental education program.

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<th>Strongly Agree</th>
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I was placed in developmental courses as a result of a placement test.

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<th>Strongly Agree</th>
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I was advised that I should take a developmental course by a counselor or advisor.

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<th>Strongly Agree</th>
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<th>Disagree</th>
<th>Strongly Disagree</th>
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I believe mandatory assessment prior to placement in developmental courses is important.

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<th>Neutral</th>
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I have been provided an opportunity to evaluate the developmental education program or course.

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</tbody>
</table>
I feel that the evaluation of the developmental education program or course had an impact on the program or course.

<table>
<thead>
<tr>
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<th>Agree</th>
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</table>

Describe the effect that participation in a developmental education program has had on your education.
APPENDIX B:
PILOT STUDENT SURVEY

Purpose of the Study: This study is designed to investigate student perception of effectiveness of a developmental education program at a community college.

Survey instructions: Please complete this voluntary survey only one time. Your answers and the results of this survey will remain confidential.

Demographic Information
Please provide your school email address:________________________________________

Have you previously completed this survey?  ○ Yes  ○ No

Gender:  ○ Male  ○ Female

Age: select a choice below:

<table>
<thead>
<tr>
<th>Age Range</th>
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</thead>
<tbody>
<tr>
<td>17-24</td>
</tr>
<tr>
<td>25-30</td>
</tr>
<tr>
<td>31-35</td>
</tr>
<tr>
<td>36-40</td>
</tr>
<tr>
<td>41 and older</td>
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</tbody>
</table>

Race: select a choice below:

<table>
<thead>
<tr>
<th>Race Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
</tr>
<tr>
<td>Black or African American</td>
</tr>
<tr>
<td>Asian</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
</tr>
<tr>
<td>Native Hawaiian or other Pacific Islander</td>
</tr>
<tr>
<td>Decline to Answer</td>
</tr>
</tbody>
</table>
**Education Background**

Do you have a high school diploma or GED? select a choice below:

- high school diploma
- GED

Did you attend a public high school, private high school, home-school, or GED program? select a choice below:

- public high school
- private high school
- home-school
- GED program

Have you attended a college or institution of higher education other than the one in which you are currently enrolled? select a choice below:

- Yes
- No

What is your current academic classification? select a choice below:

- Freshman
- Sophomore
- Junior
- Senior
- Unknown
What is your program of study? Type “undecided” if program of study has not been determined at this time.

In how many developmental education courses are you currently enrolled? select a choice below:

1
2
3
4
5 or more

How many developmental education courses are you required to take for your current program of study? select a choice below:

1
2
3
4
5 or more

129
How many developmental education courses have you completed prior to this semester? select a choice below:

<p>| | | | | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5 or more</td>
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</tbody>
</table>

What is your academic goal? Identify degree goal and / or career plans.

[Blank space]

**Developmental Education Program**

My skills have improved as a result of taking developmental coursework.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>○</td>
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</tbody>
</table>

The skills that I have learned through developmental coursework will be useful to me in the future.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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</tbody>
</table>
The objectives of developmental courses in which I have participated meet my educational needs.

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<th>Strongly Agree</th>
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<th>Disagree</th>
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Developmental coursework has made me more confident in my ability to attain my educational goals.

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Developmental course instructors provide a variety of activities to help me improve my skills.

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Developmental course instructors are accessible for help with difficult concepts in developmental courses.

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Developmental course instructors positively impact my learning in developmental coursework.

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I am satisfied with the effectiveness of the developmental education program.

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I was placed in developmental courses as a result of a placement test.

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I was advised that I should take a developmental course by a counselor or advisor.

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I believe mandatory assessment prior to placement in developmental courses is important.

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Describe the effect that participation in a developmental education program has had on your education.
APPENDIX C:
IRB APPROVAL FORM

Application for Exemption from Institutional Oversight

Unless qualified as meeting the specific criteria for exemption from Institutional Review Board (IRB) oversight, ALL LSU research/projects using living humans as subjects, or samples, or data obtained from humans, directly or indirectly, with or without their consent, must be approved or exempted in advance by the LSU IRB. This Form helps the PI determine if a project may be exempted, and is used to request an exemption.

Applicant: Please fill out the application in its entirety and include the completed application as well as parts A-E, listed below, when submitting to the IRB. Once the application is completed, please submit two copies of the completed application to the IRB Office or to a member of the Human Subjects Screening Committee. Members of this committee can be found at [http://www.lsu.edu/screeningmembers.shtml](http://www.lsu.edu/screeningmembers.shtml)

A Complete Application Includes All of the Following:

(A) Two copies of this completed form and two copies of part B thru E.
(B) A brief project description (adequate to evaluate risks to subjects and to explain your responses to Parts 1 & 2)
(C) Copies of all instruments to be used.
(D) The consent form that you will use in the study (see part 3 for more information.)
(E) Certificate of Completion of Human Subjects Protection Training for all personnel involved in the project, including students who are involved with testing or handling data, unless already on file with the IRB. Training Link: [http://php.nihtaining.com/users/login.php](http://php.nihtaining.com/users/login.php)

1) Principal Investigator: Thad D. Mitchell

Dept: ETPP  Ph: 225-938-4130

Rank: graduate student

E-mail: tmitch@tigers.lsu.edu

2) Co-Investigators: please include department, rank, phone and e-mail for each

Roland Mitchell, Associate Professor
121D Peabody Hall
Baton Rouge, LA 70803
225-578-2156 rwmitch@lsu.edu

3) Project Title: Students' Perception of Mandatory Participation in Remedial Education at a Community College

If Yes, LSU Proposal Number

4) Proposal? (yes or no) No

Also, if YES, either

- This application completely matches the scope of work in the grant
- OR More IRB Applications will be filed later

5) Subject pool (e.g. Psychology students) remedial students and instructors

*Circle any "vulnerable populations" to be used: (children <18; the mentally impaired, pregnant women, the ages, other), Projects with incarcerated persons cannot be exempted.

6) PI Signature Date 11/4/11

** I certify my responses are accurate and complete. If the project scope or design is later changed, I will resubmit for review. I will obtain written approval from the Authorized Representative of all non-LSU institutions in which the study is conducted. I also understand that it is my responsibility to maintain copies of all consent forms at LSU for three years after completion of the study. If I leave LSU before that time the consent forms should be preserved in the Departmental Office.

Screening Committee Action: Exempted _____ Not Exempted _____ Category/Paragraph _____

Reviewer Signature Date
Part 1: Determination of "Research" and Potential For Risk

This section determines whether the project meets the Department of Health and Human Services (HSS) definition of research involving human subjects, and if not, whether it nevertheless presents more than "minimal risk" to human subjects that makes IRB review prudent and necessary.

1. Is this project involving human subjects a systematic investigation, including research, development, testing, or evaluation, designed to develop or contribute to generalizable knowledge?
   (Note some instructional development and service programs will include a "research" component that may fall within HHS’ definition of human subjects research).
   - YES
   - NO

2. Does the project present physical, psychological, social or legal risks to the participants reasonably expected to exceed those risks normally experienced in daily life or in routine diagnostic physical or psychological examination or testing? You must consider the consequences if individual data inadvertently become public.
   - YES - Stop. This research cannot be exempted - submit regular application for IRB review.
   - NO - Continue to see if research can be exempted from IRB oversight

3. Are any of your participants incarcerated?
   - YES - Stop. This research cannot be exempted--submit regular application for IRB review.
   - NO - Continue to see if research can be exempted from IRB oversight.

4. Are you obtaining any health information from a health care provider that contains any of the identifiers listed below?

   A. Names
   B. Address: street address, city, county, precinct, ZIP code, and their equivalent geocodes. Exception for ZIP codes: the initial three digits of the ZIP Code may be used, if according to current publicly available data from the Bureau of the Census: (1) The geographic unit formed by combining all ZIP codes with the same three initial digits contains more than 20,000 people; and (2) the initial three digits of a ZIP code for all such geographic units containing 20,000 or fewer people is changed to ‘000’. (Note: The 17 currently restricted 3-digit ZIP codes to be replaced with '000' include: 036, 059, 063, 102, 203, 556, 692, 790, 921, 830, 831, 878, 879, 884, 890, and 893.)
   C. Dates related to individuals
      - i. Birth date
      - ii. Admission date
      - iii. Discharge date
      - iv. Date of death
      - v. And all ages over 89 and all elements of dates (including year) indicative of such age. Such ages and elements may be aggregated into a single category of age 90 or older.
   D. Telephone numbers;
   E. Fax numbers;
   F. Electronic mail addresses;
   G. Social security numbers;
   H. Medical record numbers; (including prescription numbers and clinical trial numbers)
   I. Health plan beneficiary numbers;
   J. Account numbers;
   K. Certificate/license numbers;
   L. Vehicle identifiers and serial numbers including license plate numbers;
   M. Device identifiers and serial numbers;
   N. Web Universal Resource Locators (URLs);
   O. Internet Protocol (IP) address numbers;
   P. Biometric identifiers, including finger and voice prints;
   Q. Full face photographic images and any comparable images; and
   R. Any other unique identifying number, characteristic, or code; except a code used alone or in combination with other information to identify an individual who is the subject of the information.

   - YES - Stop. This research cannot be exempted—submit regular application for IRB review.
   - NO - Continue to see if research can be exempted from IRB oversight.

Continue on the next page
Part 2: Exemption Criteria For Research Projects

Please select any and all categories that relate to your research. Research is exemptible when all research methods are one or more of the following five categories. Check statements that apply to your study:

1. In education setting, research to evaluate normal educational practices.

2. For research not involving vulnerable people [prisoner, fetus, pregnancy, children, or mentally impaired]; observe public behavior (including participatory observation), or do interviews or surveys or educational tests;

   The research must also comply with one of the following:
   
   a) The participants cannot be identified, directly or statistically;
   or that
   
   b) The responses/observations could not harm participants if made public;
   or that
   
   c) Federal statute(s) completely protect all participants' confidentiality;

3. For research not involving vulnerable people [prisoner, fetus, pregnancy, children, or mentally impaired]; observe public behavior (including participatory observation), or do interviews or surveys or educational tests:

   a) All respondents are elected, appointed, or candidates for public offices.

4. Uses only existing data, documents, records, or candidates for public offices.

   The research must also comply with one of the following:
   
   a) Subjects cannot be identified in the research data directly or statistically, and no-one can trace back from research data to identify a participant;
   or that
   
   b) The sources are publicly available

5. Research or demonstration service/care programs, e.g. health care delivery.

   a) It is directly conducted or approved by the head of a US Govt. department or agency.
   and that
   
   b) It concerns only issues under usual administrative control (48 Fed Reg 9268-9).
   e.g., regulations, eligibility, services, or delivery systems;
   and that
   
   c) Its research/evaluation methods are also exempt from IRB review.

6. For research not involving vulnerable volunteers (see "2&3" above), do food research to evaluate quality, taste, or consumer acceptance.

   The research must also comply with one of the following:
   
   a) The food has no additives;
   or that
   
   b) The food is certified safe by the USDA, FDA, or EPA.
This is to certify that

Thad Mitchell

has completed the Human Participants Protection Education for Research Teams online course, sponsored by the National Institutes of Health (NIH), on 07/19/2007.

This course included the following:

- key historical events and current issues that impact guidelines and legislation on human participant protection in research.
- ethical principles and guidelines that should assist in resolving the ethical issues inherent in the conduct of research with human participants.
- the use of key ethical principles and federal regulations to protect human participants at various stages in the research process.
- a description of guidelines for the protection of special populations in research.
- a definition of informed consent and components necessary for a valid consent.
- a description of the role of the IRB in the research process.
- the roles, responsibilities, and interactions of federal agencies, institutions, and researchers in conducting research with human participants.

National Institutes of Health
http://www.nih.gov
**Please sign and submit this document with your IRB application**

Security of Data

Number: PS06.20

SECURITY OF DATA

PURPOSE

I certify that I have read and will follow LSU's policy on security of data - [PS06.20](http://itsweb.lsu.edu/ITS_Security/IT_Policies/LSU/item614.html) and will follow best practices for security of confidential data [here](http://itsweb.lsu.edu/ITS_Security/Best_Practices/Sensitive_Data/item862.html).

This Policy Statement outlines the responsibilities of all users in supporting and upholding the security of data at Louisiana State University regardless of user's affiliation or relation with the University, and irrespective of where the data is located, utilized, or accessed. All members of the University community have a responsibility to protect the confidentiality, integrity, and availability of data from unauthorized generation, access, modification, disclosure, transmission, or destruction. Specifically, this Policy Statement establishes important guidelines and restrictions regarding any and all use of data at, for, or through Louisiana State University. This policy is not exhaustive of all user responsibilities, but is intended to outline certain specific responsibilities that each user acknowledges, accepts, and agrees to follow when using data provided at, for, by and/or through the University. Violations of this policy may lead to disciplinary action up to and including dismissal, expulsion, and/or legal action. It is recommended that all personnel on your project be familiar with these policies and requirements for security of your data.

In addition it is recommended that PIs review any grant, non-disclosure/confidentiality agreement, or restricted data agreements before publishing articles using the data.

I certify that I have read and understand these policies.

Name: [Signature]

Date: 1/9/2011
VITA

Thad D. Mitchell, a native of Holden, Louisiana, received a bachelor’s degree in Secondary Education from Southeastern Louisiana University in 1999 and a master’s degree in Educational Administration from the University of Southern Mississippi in 2005. He has worked as a public school teacher since 1999. He plans to complete a doctorate in Educational Leadership, Leadership, and Counseling through Louisiana State University in 2013.