An Exploration of the Differences in Characteristics between Passing and Non-Passing Developmental English Students from a Kansas Community College

Noreen L. Templin
B.B.A., Wichita State University, 1998
M.A., Wichita State University, 2000

Submitted to the Graduate Department and Faculty of the School of Education of Baker University in partial fulfillment of the requirements for the degree of Doctor of Education in Educational Leadership

Marie Miller, Ph.D.
Major Advisor

Tes Mehring, Ph.D.

Susan Bradley, Ph.D.

Date Defended: April 16, 2018

Abstract

Some students come to community colleges when they are underprepared for college-level work and must enroll in developmental education courses. The developmental English course at a Kansas community college was a co-requisite of the college-level English Composition I (EG101) course. This combined program of a developmental course paired with a college-level course is known as the Accelerated Learning Program (ALP). Almost 70% of English developmental students passed EG101 in the ALP model during the Fall 2016 and Spring 2017 academic year. This study focused on the students enrolled in the first complete academic year of full-scale ALP implementation at a Kansas community college. The purpose of this study was to explore the differences in characteristics of these community college students who successfully passed EG101 compared to those students who did not pass EG101.

A quantitative research method was utilized in this study using a descriptive research design. The study of students in P101 (students who passed) and NP101 (students who did not pass) included personal characteristics of sex, age, ethnicity, and residency. The academic characteristics were current credit hours taken in the same semester and including ALP, previous credit hours completed before the semester of ALP, degree declared, and co-enrollment in a remedial reading course with ALP.

The results showed current credit hours taken in the same semester and including ALP were higher for P101 students than for the NP101 students. The P101 students had more previous credit hours completed before the semester of ALP than the students in NP101. Regarding sex, the data showed males in NP101 were 21.1% higher than the males in the P101 group, and females were 21.1% higher in the P101 group than the

females in NP101. Also, the data in the ethnicity group showed that Blacks were 8.6% higher in NP101 than in the Blacks in the P101 group, and Whites were 9.9% higher in P101 than the Whites in NP101. To increase the passing rates of developmental students with these personal and academic characteristics, it is recommended institutions change assessment and placement to multiple measures, curriculum to include intrusive academic advising, and instruction to relational instructional strategies.

Dedication

This study is dedicated to all the community college students enrolled in developmental education yet working hard to earn a degree. This study is also dedicated to the faculty, staff, and administration who are determined to make a difference in the lives of students every day by helping all students learn and reach their goals.

Acknowledgements

The journey of this dissertation completion would not be possible without the help and support of many individuals. My family has been supportive when I decided that this was a journey that I wanted to begin. Specifically, I'm thankful for my husband, Trey, and children, Andrew, Braeden, and Alyson, who gave me unconditional love and support throughout this process. They were always interested in my progress and helped to give me time to work. In addition, my parents taught me how to work hard to reach a goal. Thank you to my extended family, including my parents, in-laws, sisters, and brother, who encouraged me to keep going on my journey and by calling to check on my progress.

I would not have been able to complete this study without the support and help of the faculty, staff, and administration at my institution. The faculty in the English department gave me the idea for the topic and then continually stayed interested in my work. They accepted me into their meetings, let me go with them to conferences, and discussed their knowledge and experiences to answer my questions. Because of their help, I was able to learn about a topic in which I previously knew nothing. The staff and administration took an interest in my dissertation and helped me when I needed something. Thank you to my institution for granting me a semester sabbatical to finish my dissertation.

Thank you to my dissertation advisor, Dr. Miller, who continually pushed me to do my best through her comments and ideas. Also, thank you to my classmates in Wichita, Sarah and Miya, who become great friends as we worked together to complete this process. We learned to draw on each other's strengths and laugh, cry, and celebrate

together. Without the help and support of so many people, this dissertation would not be possible.

Table of Contents

List of Tables

List of Figures

Chapter 1

Introduction

The goal of higher education is for an individual to increase knowledge and skills that could result in a credential (Arum & Roksa, 2011). The payoffs for earning a credential can include a benefit to an individual as well as a benefit to society. Over the course of an individual's working life, the payoff of that credential can be a salary of between $0.5 million to $1 million higher compared to someone who has only a high school education (Vanderburgh, 2017). The payoff of an individual's credential is also a benefit to society through creating a more equal society and increased civic engagement (Kempson, Bako, & Lewin, 2014; U.S. Department of Education, 2010; Zhu, 2004).

Two-year institutions including community colleges offer associate degrees and occupational credentials, which take about two years to complete. The associate degree can then be transferred to a course series for students to finish bachelor degrees. However, only 30% of students entering community colleges graduate with a credential within six years (Rutschow & Schneider, 2014). Community colleges need to increase graduation rates but have the challenge of educating students with inadequate academic skills (Bailey, Jaggars, & Jenkins, 2015). Students entering these institutions must have college-level knowledge and skills in mathematics as well as in reading and English composition (Attewell, Lavin, Domina, & Levey, 2006). However, two-thirds of high school graduates entering community colleges have required remediation in either mathematics and/or one part of English language arts (Bailey & Jaggars, 2016).

English language arts education consists of reading and composition. English Composition I is the college-level composition course that has been considered essential

to education because the ability to write is the basis of all academics while reading is fundamental to all aspects of life (Kempson et al., 2014). Students who enter higher education institutions in Kansas and who are not academically prepared for English Composition I, an entry-level course, must first enroll in remedial or developmental courses in composition and/or reading (Kansas Board of Regents, 2017a). The Kansas Board of Regents defines developmental education for all Kansas institutions:

> Developmental education includes courses in all fields of study that are designed to increase the likelihood of student success at the entry level of a certificate or degree program. Developmental education programs include activities that address subject matter remediation, development of competencies, and change of attitudes toward learning. The content of developmental education courses is at a level below that normally included in the first and second year college-level curricula…. To meet the developmental needs of students, Kansas public postsecondary educational institutions may offer courses in developmental reading, mathematics, English, and other content areas. (Kansas Board of Regents, 2017a, para. 14)

The public two-year and four-year institutions in Kansas have been educating students to the level of reading and writing proficiency prior to enrollment in the college-level English composition course. Developmental education by all public institutions has educated students to college-level proficiency. However, the two-year institutions including community colleges have been expected to continue to provide most of the developmental education. Noble and Sawyer (2013) stated that "some states and college systems have already restricted developmental coursework to two-year colleges (e.g.

Florida, Kansas, Illinois, the CUNY system)" (p. 4). Kansas has encouraged the community colleges to offer developmental education and state universities not to offer developmental education because "beginning in August 15, 2015 … no funds appropriated from the state general fund for any state university shall be expended for the purpose of providing developmental courses in the area of mathematics or language arts" (Kansas Board of Regents, 2017a, para. 14).

Students who have inadequate academic competencies for college-level work need developmental education. Institutions may require one developmental course or multiple levels of developmental courses in the same subject area to meet the academic skills before enrolling in college-level work (Bettinger, Boatman, & Long, 2013). Some institutions have students enrolled in both the developmental courses and the college-level course concurrently (Jenkins, Speroni, Belfield, Jaggars, & Edgecombe, 2010). This study explored the differences in characteristics of the passing and non-passing students who were enrolled in developmental English courses and co-enrolled in the entry-level English composition course in the same semester. From the Spring 2013 semester through the Spring 2017 semester, students enrolled in both courses in the same semester had a 63% pass rate at Butler Community College, a Kansas mid-sized two-year public community college (S. Bradley, personal communication, July 18, 2017). (Butler Community College has given permission to be named as the institution in this study as shown in Appendix A.)

Research on characteristics of students not passing developmental education courses is limited to a report from the Tennessee Board of Regents (TBR). Denley (2016) reported community college students had a 62% pass rate of English composition

when taking the co-requisite developmental course in the same semester. The TBR also reported all Tennessee developmental students who did not pass the college-level mathematics or English courses when taking the co-requisite developmental courses and found that more than two-thirds of these students failed all their attempted courses (Denley, 2016).

No additional research has been conducted at institutions on the students who are not passing the English composition course when co-enrolled with developmental courses. Comparing the differences of the characteristics of passing students with the non-passing students could potentially enable institutions including Butler Community College to implement different or additional methods to improve the pass rates of the developmental students in the entry-level English composition course and to improve graduation rates of these students.

Background

The proficiency for English composition course placement is determined by a placement test score. Specifically, scores from the ACT, which the student takes prior to applying to the institution, determines either direct placement into English Composition I or assignment to one or more developmental courses. To enroll directly in English Composition I, a student must have a cutoff composite score of 19 on the ACT with an English writing score of 18 and reading score of 15 (Center for Community College Student Engagement, 2016; Noble & Sawyer, 2013). If a student's placement score is lower than 18 for writing or 15 in reading from the ACT, higher education institutions throughout the U.S. could use a diagnostic test of ACCUPLACER or COMPASS to

assess the level of the student's cognitive ability in English reading and composition (Boylan, 2009).

These placement scores have been used by many institutions although each community college determines their own cutoff scores for students (Jaggars, Hodara, & Stacey, 2013). Butler Community College's cutoff score for direct placement in the college-level English composition course is the same as other institutions with a minimum ACT writing score of 18 and reading score of 15 (Butler Community College, 2017). Students are required to take an additional placement diagnostic test of ASSET or ACCUPLACER if the ACT scores are below this cutoff (Butler Community College, 2018b). The COMPASS diagnostic test was discontinued at the end of 2016 (Pivik, 2016).

After determining the level of English reading and writing cognitive ability, most students follow the traditional sequence of developmental education. The traditional sequence requires the completion of a remedial course in composition and/or reading in one semester before advancing to either the next remedial course or the college-level course of English Composition I in the next semester. This sequence has resulted in fewer than 10% of students completing all the required remedial courses, completing English Composition I, and achieving a degree (Hern, 2012).

Several community colleges have changed remedial education to accelerating the classes or "mainstreaming" to improve the number of students completing English Composition I (Jenkins et al., 2010). Under mainstreaming developmental education, students are enrolled simultaneously in both the college-level course and a supplemental remedial course. For English developmental education, mainstreaming is defined as

"developmental students [who] are co-enrolled in the developmental course and the college-level composition course, rather than completing the developmental course as a prerequisite" (Coleman, 2015, p. 1). Hern (2012) argued that mainstreaming is more successful than the traditional sequence because students learn the cognitive skills of English in a shorter time with fewer chances to exit the higher education system.

Students admitted to Butler Community College, a two-year public institution in Kansas, were assessed by placement scores and assigned to appropriate English developmental courses. These students were required to pass the developmental course, Fundamentals of English (EG060), in the semester prior to enrolling in the three-credit-hour general education course of English Composition I (EG101). After taking EG060 in a previous semester, only 39% of students passed EG101 (McCoskey, McCaffree, Templin, & Teubner, 2015).

In Spring 2013, Butler Community College adopted the Accelerated Learning Program (ALP), developed by the Community College of Baltimore County (CCBC), as the instructional model for its English remedial courses (McCoskey et al., 2015). This ALP model mainstreamed the developmental students directly into the three-credit-hour college-level English composition class and a three-credit-hour remedial course during the same semester (Coleman, 2014). The results at Butler Community College showed a 28% increase in students passing EG101 with ALP during the three semesters of Spring 2014, Fall 2014, and Spring 2015 compared to students in the traditional sequence (McCoskey et al., 2015). The complete progression of implementing ALP at Butler Community College through Spring 2015 is described in Appendix B.

Butler Community College piloted one section of EG060/EG101 in Spring 2013 and extended the pilot to three sections in Fall 2013. The following Spring 2014 and Fall 2014 had 13 and 14 sections respectively of the paired courses (McCoskey et al., 2015). Beginning with the Fall 2016 semester, Butler Community College changed to full-scale implementation of ALP with 34 paired sections (K. McCoskey, personal communication, May 16, 2017). An institution with full-scale implementation means only one level of remedial English was offered with the college-level course for almost all students enrolled in developmental education (Coleman, 2015).

The data showed an increase in the percentage of students at Butler Community College passing EG101 when enrolled in ALP. According to Noble and Sawyer (2013), "Most research to date has compared the overall success of developmental students as a group with that of non-developmental students" (p. 4). This research compared data for groups of developmental students and non-developmental students or groups of developmental students in mainstreaming programs with the groups of students in the traditional model at Butler Community College. There is no research that has studied the comparison of the group who passed EG101 in the mainstreamed model and the group who did not pass.

Research has identified characteristics of students enrolled in developmental education: young, male, minorities, and full-time students (Alvarez, 2008; Bailey & Jaggars, 2016; Barton, 1983). Attewell et al. (2006) also observed that students enrolled in developmental courses were part-time students and had completed fewer than 10 previous credit hours. These researchers noted that when students have low reading levels, the chance of college completion is lessened. Hodara and Cox (2016) reported

that rural students placed in developmental English at higher rates than non-rural students. Because data have been unavailable for the academic goals of students, degree completion was used as academic goals for students in developmental education (Noble & Sawyer, 2013). Since degree completion data were unavailable to the researcher, degree declared was used as an alternative for academic goals. Butler Community College has not explored the data to identify if the English developmental education students match these researched characteristics.

The first-time degree-seeking students enrolled in developmental English education at Kansas community colleges were 18.8% of the total students enrolled in community colleges in 2016 (Kansas Board of Regents, 2017b). Of this first-time degree-seeking group of students enrolled in English developmental education, 19.9% students were under 19 years of age and 22.5% students were ages 20-24 years while 9.8% were over 25 years of age (Kansas Board of Regents, 2017b). This group had 19.5% males and 18.1% females with an ethnicity of 13.1% White, 32% Black, 25.9% Hispanic, and 23.5% other ethnicity (Kansas Board of Regents, 2017b).

Statement of the Problem

Butler Community College developmental students passed EG101 with less than a 70% rate even with the increased 28% effectiveness of ALP over the traditional remedial sequence during three semesters of limited sections in Spring 2014 through Spring 2015 (McCoskey et al., 2015). With full-scale ALP implementation for Fall 2016 and Spring 2017, the pass rates of students in EG101 were 62% and 56% respectively (S. Bradley, personal communication, July 18, 2017). The characteristics of the approximately 40% of students who failed is unknown.

While the effectiveness of the developmental programs has much published research including from some of the over 280 institutions using the ALP model, no research has been conducted on the characteristics of the students who do not successfully complete the mainstreamed college-level course with the remedial course (Center for Community College Student Engagement, 2016; Coleman, 2014; Coleman, 2015; Community College of Baltimore County, 2017a; Community College of Baltimore County, 2017c). There may be differences in personal or academic demographics between the group of students who passed EG101 and the group of students who did not pass the course, but no one has studied these differences.

Purpose of the Study

The purpose of this quantitative study was to examine the differences in student characteristics between Butler Community College students enrolled in the first complete academic year of full-scale ALP implementation who successfully passed EG101 compared to those students who did not pass EG101.

Significance of the Study

Handel and Williams (2011) estimated developmental education costs are approximately $1 to $2 billion per year with students paying over $700 million in tuition. Community colleges spend part of their budgets on developmental education for institutional costs that tuition revenue does cover (Merisotis & Phipps, 2014). State funding for higher education has continually declined since 2008 while students are paying more tuition (Kansas Center for Economic Growth, 2013). Money continues to be spent on developmental education by institutions and students, yet the result is that many students do not pass the college-level course.

With declining state funding, institutions have limited funds to improve results. The study of the characteristics of ALP students not passing may enable this community college in Kansas to use its resources to find additional support for those students. By knowing the characteristics of the non-passing students, Butler Community College may be able to improve the ALP program to more efficiently educate those students needing developmental education and increase graduation rates.

The higher education institutions throughout Kansas along with the Kansas Board of Regents (KBOR) may be interested in the results of this study because "many of [the] underprepared students have not been well served by existing remedial education policies and practices…[which] is of particular concern to Kansas" (Kansas Board of Regents, 2014, p. 2). To improve policies and practices, KBOR established the Developmental Education Working Group to make recommendations on developmental education (Kansas Board of Regents, 2014). The findings from this study could be useful to the Developmental Education Working Group for recommendations to the state and Kansas institutions providing developmental education. The over 280 institutions using the ALP model could also use the results of this study to improve developmental education throughout the U.S. (Community College of Baltimore County, 2017a).

Delimitations

Delimitations are the restrictions set by the researcher for a study (Lunenburg & Irby, 2008). The researcher set the following delimitations:

1. Student data were limited to Butler Community College students.
2. Only students who enrolled in the full-scale implementation of the ALP course pairings (EG101 and EG060) in the same semester were included.

3. Data for only students who completed both courses with a recorded grade at the end of the semester were included in this study.
4. The letter grade of A, B, or C was considered passing while D, F, WD, and WT were considered not passing. While a grade of D classifies as passing, that grade made the student ineligible to continue to the next class of English Composition II (Community College of Baltimore County, 2011).
5. This study included data from the Fall 2016 and Spring 2017 semesters.
6. P101 identifies those students who passed EG101. NP101 categorizes the students who did not pass EG101.

Assumptions

Lunenburg and Irby (2008) defined assumptions as the "postulates, premises, and propositions that are accepted as operational for purposes of research" (p. 135). The researcher assumed:

1. All students accurately reported their demographic information.
2. The demographic information was entered correctly.
3. The instructors used the standardized curriculum for both courses as outlined by Butler Community College in all classes.
4. Course grades were accurately reported and recorded in the Registrar's Office.
5. Data retrieved from the Office of Research and Institutional Effectiveness at Butler Community College were complete and accurate.

Research Questions

The following research questions guided this study:

RQ1. To what extent was there a difference in sex between P101 and NP101 students?

RQ2. To what extent was there a difference in age between P101 and NP101 students?

RQ3. To what extent was there a difference in ethnicity between P101 and NP101 students?

RQ4. To what extent was there a difference in residency between P101 and NP101 students?

RQ5. To what extent was there a difference in current credit hours taken in the same semester and including ALP between P101 and NP101 students?

RQ6. To what extent was there a difference in previous credit hours completed before the semester of ALP between P101 and NP101 students?

RQ7. To what extent was there a difference in degree declared between P101 and NP101 students?

RQ8. To what extent was there a difference in co-enrollment with ALP in a remedial reading course between P101 and NP101 students?

Definition of Terms

This section identifies and defines key terms that will be used throughout the study.

Age. The age of the student was based on the number of years at the end of the semester based on the birth date. College student populations are divided by age with the

traditional-aged students being 18- to 24-years-old and non-traditional students being over the age of 25 (Adelman, 2005).

Current credit hours. Since courses have varying credit hour amounts, the total number of credit hours in which the student was enrolled at the institution at the end of the identified semester illustrates the academic workload of a student. The U.S. Department of Education defined one credit hour as "an amount of work … that is an institutionally established equivalency that reasonably approximates not less than one hour of classroom… and a minimum of two hours of out of class student work each week for approximately fifteen weeks" (Ewell, 2016, p. 10).

Degree declared. The student's stated choice of degree at the institution demonstrates the educational plan (Noble & Sawyer, 2013).

Previous credit hours. The total number of credit hours for which the student has received credit as shown on the student's transcript completed prior to an identified semester of enrollment indicates earlier college experience (Hodara, 2015).

Reading course. At Butler Community College, as a result of an ACT reading score below 15, the student enrolls in a remedial reading course during the same semester of the ALP course enrollment (Butler Community College, 2018a). The reading courses are Basic Reading and Vocabulary (RD011) and Reading Fundamentals (RD012) (Honer, 2015a; Honer, 2015b).

Residency. The residency is the permanent address at the time of an identified semester at the institution and has shown to be a characteristic of developmental educational placement (Hodara & Cox, 2016).

Organization of the Study

There are five chapters in this study. Chapter 1 provided an introduction, background, statement of the problem, purpose of the study, significance of the study, delimitations, assumptions, research questions and definition of terms. Chapter 2 includes a review of the literature related to developmental education with the historical background, current status, recommendations, and accelerated developmental education. Chapter 3 includes the research design, selection of participants, measurement, data collection procedures, data analysis and hypothesis testing, and limitations. The results of the data analysis and hypothesis testing are provided in Chapter 4. A summary of the study, findings related to the literature, and conclusions are provided in Chapter 5.

Chapter 2

Review of Literature

A postsecondary credential has become vital in today's economy. According to Holzer and Baum (2017), "A high school education no longer provides a reasonable chance for earnings that can support a family. Improving educational attainment is widely seen as a mechanism for improving living standards … where they can expect some level of economic security" (p. 2). The option for educational attainment has been necessary because "almost 90% of new jobs in occupations with both high growth and high wages require at least some postsecondary training" (Alliance for Excellent Education, 2010, p. 36).

However, with the "realities of socioeconomic inequality and inadequate elementary and secondary education…many recent high school graduates and older adults have such large gaps in their academic preparation" (Holzer & Baum, 2017, p. 2). Higher education institutions have implemented developmental education programs that could help meet students' academic preparation needs. The developmental education programs include "essentially reteach[ing] high school—and junior high school—level content in reading, writing, and math" (Jaggars & Stacey, 2014, p. 1) while adding academic support and additional student services (Bettinger et al., 2013).

This literature review begins with the historical background of developmental education in the United States. The review continues with the current status of developmental education including the objectives and criticisms of developmental education. This chapter also includes research on recommendations for developmental education with academic restructuring and placement testing policies. The final section

focuses on accelerated developmental education citing research still needing to be completed in this field.

Historical Background of Developmental Education

Harvard College, established in 1636, was the first college in the United States dedicated to educating clergy and leaders for imparting religious values to the colonists (White, Martirosyan, & Wanjohi, 2014). Harvard College was based on Eaton and Oxford universities in England. These European universities, as well as Harvard, had all textbooks and scholarly works written in Latin (Arendale, 2014; Cafarella, 2014). The admission requirements for Harvard College, as well as for other early U.S. colleges, included knowledge of Latin. Given the limited elementary and secondary education, the colonists lacked the foreign language knowledge to pass admission requirements (Geiger, 2016).

Many of the colonists were struggling to survive in the new land; therefore, they did not put a priority on learning Latin or becoming a scholar. White males from privileged families, however, were tutored in Latin or sent to live with clergymen to learn Latin. To better prepare prospective students, Harvard College provided instructors for those who wanted to attend the college as well as for those seeking Latin proficiency (Arendale, 2014; Cafarella, 2014). This tutoring of students in Latin is the earliest evidence of remedial education in the United States (Boylan & White, 2014).

After the Revolutionary War, the textbooks and instruction switched from Latin to English. As a result of English instruction, college enrollment grew as more institutions beyond Harvard College were established and were available to young white men who were willing to pay the tuition. These institutions admitted privileged male students with

lower academic preparedness since they were willing to pay (Cafarella, 2014). To combat these lower academic standards and to prepare students for college, academic preparation schools were instituted as precursors to high schools. These community-based academies provided remedial education in reading, writing, and mathematics. The remedial education at that time, however, was still limited to only privileged white students (Arendale, 2014).

The economic policies of the mid-1800s Jacksonian democracy required more education for the general population. The policies included expanding small businesses for the new nation by giving financial assistance. Because of increased growth of small businesses, a new middle class now needed postsecondary education to increase the skills in various aspects of the economy, including agriculture, engineering, and science (Boylan & White, 2014). In turn, additional institutions began to address the needed business skills instead of training only clergy and allowed open enrollment to students who could pay tuition. The increased number of such institutions encouraged social advancement because these institutions kept the tuition low and encouraged the enrollment of young white men who were below the social elite (Dotzler, 2003; Geiger, 2016).

Secondary education during this period was still restricted to only white men pursuing postsecondary education even with their limited reading and writing skills. Colleges did not rely on the academic preparation academies but rather established programs to assist these students' improvement of reading and writing. The University of Missouri (1845) and the University of Wisconsin (1849) were two of the first colleges to establish academic departments and faculty to remediate the men in reading and writing

(Arendale, 2014; White et al., 2014). Charles William Eliot in his presidential inaugural address at Harvard College in 1869 stated, "The American college is obliged to supplement the American school. Whatever elementary instruction the schools fail to give, the college must supply" (Brier, 2014, p. 11).

Throughout the remaining 1800s and into the early 1900s, over 80% of colleges continued to provide remedial classes in spelling, writing, geography, and math within separate departments in the institutions (Boylan & White, 2014; Brier, 2014). At this time, remedial education was defined as "instruction designed to remove a student's deficiencies in the basic entry or exit level skills at a prescribed level of proficiency in order to make him/her competitive with peers" (Arendale, 2014, p. 35). The students entering these institutions were mostly limited to the white males who were still needing remedial education. The departments in the colleges concentrated on instruction only to bring the students' aptitudes to the level required for the institution (Arendale, 2014; Brier, 2014; White et al., 2014).

After World War II, the President's Commission on Higher Education recommended that additional segments of the population should be enrolled in colleges because "the nation was depriving itself of a vast pool of potential leaders and socially competent citizens by allowing access based on economic status to be perpetuated" (Gilbert & Heller, 2013, p. 418). The Commission's goal was to double college attendance by 1960 because "America cannot afford to let any of its potential human resources go undiscovered and undeveloped" (President's Commission on Higher Education, 2017, p. 8). From the 1950s, the growth of colleges increased as institutions began to enroll women, ethnically diverse students, and nontraditional students classified

as over the age of 25 (Adelman, 2005; Arendale, 2014). The federal government also helped increase college enrollment by all segments of the population by passing the Higher Education Act in 1965 and the Basic Educational Opportunity Grant in 1972, which provided funding for a college education (Baum, Kurose, & McPherson, 2013).

While access to colleges was available to a much larger population, many of these students did not have the skills for postsecondary education. Even the Commission realized that individuals had varying educational proficiencies based on their elementary and secondary education (Gilbert & Heller, 2013). Although these individuals had access to college, they needed more remedial education. Junior colleges began by providing general education prior to entering a four-year institution. These junior colleges expanded to meet the growing demand of increased remediation (Cafarella, 2014).

At the time of the Commission's report in 1947, approximately 600 junior colleges existed, and most had only about 75 students and only about 1.5 million total students enrolled in all institutions (Geiger, 2016; Gilbert & Heller, 2013). The junior colleges gradually became public community colleges for the purpose of providing enrollment to all individuals by not requiring the prerequisites of universities and by being near the communities they served (Carafella, 2014; Pedersen, 2001). Demand for community colleges increased when over 1.1 million returning veterans used the money provided by the government through the Servicemen's Readjustment Act of 1944, known as the GI Bill. Many needed remediation in study skills and reading (Carafella, 2014; Geiger, 2016). When the open-door admissions policies occurred in the 1960s, the number of community colleges increased at a rate of over one per week and expanded their services to everyone by creating noncredit learning assistance centers, programs,

and courses (Arendale, 2014; Carafella, 2014; Geiger, 2016). In the fall of 2014, as a comparison to the 600 in 1947, there were 1,108 community colleges in the United States with an enrollment of 12.3 million students (American Association of Community Colleges, 2017).

Current Status of Developmental Education

Throughout the history of higher education in the United States, students have entered postsecondary institutions lacking the academic proficiencies necessary for the required coursework. The goal of secondary education has been to graduate students with the readiness to perform at the college-level curriculum (Alliance for Excellent Education, 2010). College readiness has been defined as having the academic skills necessary to complete college-level work (Bailey, 2009). When the students' academic readiness required to complete higher education courses had deficiencies, the higher education institutions educated students with remedial courses in math, reading, and/or writing to the level of college readiness (Jaggers & Stacey, 2014).

As shown in Table 1, Arendale (2014) listed six different phases of history of remediation in the United States, along with the specific supportive activities provided and the types of students afforded that support.

Table 1: Six Phases of Learning Assistance History

Time Phase	**Name(s) Commonly Used with Activities**	**People Served Predominantly during This Time Period**
Phase One: 1600s to 1820s	Tutoring	Privileged white male students
Phase Two: 1830s to 1860s	Precollegiate preparatory academy and tutoring	Privileged white male students
Phase Three: 1870s to Mid-1940s	Remedial education classes in college preparatory programs and tutoring	Mostly white male students
Phase Four: Mid-1940s to 1970s	Compensatory education, counseling center, opportunity program, reading clinic, remedial education classes integrated in the institution, tutoring	Traditional white male students, nontraditional males and females such as war veterans, and federal legislative priority groups: first-generation college students, economically disadvantaged students, and students of color
Phase Five: Early 1970s to Mid-1990s	Access program, developmental education, learning assistance, opportunity program, tutoring	Groups listed above, with an increase in older students who return to education or attend postsecondary education for the first time, and some general students who want to deepen mastery of academic content
Phase Six: Mid 1990s to the Present	Access program, developmental education, learning assistance, learning/teaching center, learning enrichment, opportunity program	Groups listed above, with an increase in general students, students with disabilities, and faculty members who seek professional development in learning and teaching skills

Note. Adapted from "Six Phases of Learning Assistance History," by D. R. Arendale, 2014, *History of Learning Assistance in U.S. Postsecondary Education*. In H. R. Boylan & B. S. Bonham (Eds.), *Developmental Education: Readings on its Past, Present, and Future*, p. 29.

Objectives of Developmental Education

Remedial education changed in the 1970s to developmental education when it became a field of research and practice in higher education based on adult learning and developmental psychology theories (Boylan & Bonham, 2014; Goudas & Boylan, 2013). Developmental education academic courses instructed students who were identified as having insufficient readiness of their academic skills for college-level work in math,

reading, and/or English composition. The developmental education provided additional academic enhancement courses in these subjects (Bailey, 2009; Jaggers & Stacey, 2014). Beginning in early 2000s, developmental education intensified to enable educational opportunities for all underprepared postsecondary students and to continue to support students' non-academic needs (Boylan, Calderwood, Levine-Brown, & Anthony, 2017; Center for Community College Student Engagement, 2016). According to Boylan and Bonham (2014), developmental education was considered the integration of remedial academic activities with non-academic student services. The remediation of academic skills focused on math, reading, and English composition because these were essential skills to meet the course requirements in a general education course series.

Goudas and Boylan (2013) emphasized that developmental education should also include the integration of the non-academic student services. The student services in developmental education included personal and career counseling, casework, and all forms of academic support such as mentoring, active academic advising, tutoring, skill building, and additional instruction. The benefit of this integration of student services with academic activities can assist students to develop the life skills required to attain their goals by helping to remove the barriers of being underprepared as well as navigate the complexities of the postsecondary environment (Bettinger et al., 2013; Holzer & Baum, 2017).

The purpose of developmental education has been to educate students for the readiness of college-level academic work. The academic work is to complete a course series leading to a degree credential. A course series is divided into courses of various subject contents with an amount of workload determined by credit hours. Individual

institutions determine the number of credit hours required for each degree credential. For a bachelor's degree, the minimum number of 120 credit hours was required for the completion of the course series (Pitter, LeMon, & Lanham, 1996). Many of these course series required general education courses that all students had to complete to continue into their chosen area of degree credentialing.

General education courses are the core course requirements that all degree credentials require for completion (Seraphin, 2013). According to Kempson et al. (2014), the subjects included in the general education curriculum are designed for "imparting the skills and knowledge needed for success in career and community and the ability to understand and appreciate the human condition" (p. 7). These researchers surveyed over 1,000 higher education institutions across the United States to identify the seven subjects for the core general education requirements:

1. Composition. The ability to write clearly and skillfully is among the most fundamental of academic skills, and a foundation for most advanced work….
2. Literature. The study of literature speaks to the diversity of human thought and experience, and it inculcates habits of attentive reading and reflection that students will use for the rest of their lives….
3. Foreign Language. Because language is a direct reflection of thought, there is no better tool for understanding the perspectives of different cultures than the study of foreign languages….
4. U.S. Government or History. Higher education in a free society also has a civic purpose. Colleges and universities must ensure that students have a working knowledge of the history and governing institutions of their country.

> An understanding of American history and government is indispensable for the formation of responsible citizens and for the preservation of free institutions….
>
> 5. Economics. In an interconnected world of finite resources, understanding the principles that govern the allocation of goods and services—economics—is essential….
> 6. Mathematics. Just as studying the world of human culture requires language, studying the natural world and the social sciences requires mathematics. Ancient and medieval scholars understood that math provides a fundamentally different way of apprehending the world than that of language; it still does. Moreover, numeracy at the college level has practical benefits for everything from the workplace to home finance to evaluating statistics read in the newspaper….
> 7. Natural or Physical Science. Familiarity with quantitative reasoning prepares students to master the basic principles of scientific experimentation and observation that are indispensable for understanding the world in which we live. Science courses such as chemistry, biology, and physics build the analytical and critical thinking skills that today's employers demand while preparing graduates to navigate the complex and interconnected world that they will join upon finishing their education. (Kempson et al., 2014, pp. 8-10)

The Kansas Board of Regents (KBOR), the governing body for public higher education in the state of Kansas, determined the subjects to be included in the general education courses for degree credentials. One subject for the general education

curriculum required for all students across public institutions of higher education in Kansas is English Composition I, which is worth three credit hours (Kansas Board of Regents, 2017d; Kempson et al., 2014).

Based on the general education requirement for English composition, KBOR defined the proficiency of English Composition I for all Kansas institutions.

> Upon completion…, students will be able to do the following:
>
> 1. Employ conventions of format, structure, voice, tone, and level of formality to produce writing for specific purposes and audiences as required by various writing situations.
> 2. Practice ethical means of creating their work while integrating their own ideas with those of others.
> 3. Demonstrate an ability to fulfill standards of syntax, grammar, punctuation, and spelling for various rhetorical contexts.
> 4. Apply flexible strategies for prewriting, developing, drafting, revising, editing, and proofreading.
> 5. Critique their own and others' work. (Kansas Board of Regents, 2017d, p. 2)

The Kansas Board of Regents (2017c) set a goal to "increase to 60 percent the number of Kansas adults who have earned a certificate, associate or bachelor's degree by 2020" (p. 1). To achieve this goal, KBOR made developmental education part of this process since some students would need to attain the level of college readiness in math, reading, and English composition to then succeed in the course series for a credential. In 2016, 36.3% or 16,723 first time degree-seeking students attending a Kansas community

college were enrolled in developmental education courses; specifically, 18.8% of the total community college students were enrolled in a developmental reading or English composition course (Kansas Board of Regents, 2017b).

Criticisms of Developmental Education

Policymakers have criticized developmental education. Specifically, many state legislators question the high numbers of students taking remedial courses and believe students should have learned these concepts in their secondary education coursework (Merisotis & Phipps, 2014; Tierney & Duncheon, 2013). According to Bromberg and Theokas (2016), policymakers have set the standard for secondary education and the students' graduation requirements from high school with a college-ready curriculum:

> College-Prep Curriculum: Consists of four credits in English; three credits in math, including algebra II; three credits in social studies, including U.S. history or world history; three credits in science, including biology and either chemistry or physics; and two credits in the same foreign language. … This definition is aligned with the entry requirements at many public colleges but does not indicate exposure to all of the experiences and knowledge a student might need to be ready for college. (p. 2)

Using this college-prep curriculum as the benchmark, Bromberg and Theokas (2016) analyzed high school transcripts of students throughout the U.S. from 2009 to 2013 and found that only 31% of students completed this curriculum. The low percentage of students graduating without completing these requirements indicated that students attending college were not ready for the college-level curriculum. According to Bailey (2009), "A majority of community college students arrive underprepared to

engage effectively in the core function of the college" (p. 11). In a longitudinal study ending in 2000, 58% of high school graduates enrolled in at least one remedial course while attending a community college, and that number grew to 68% by 2014 (Bailey, 2009; Jaggars & Stacey, 2014).

Bailey (2009) reported that these statistics do not adequately represent the number of students who are underprepared and require developmental education as these numbers are only the students who enrolled in developmental education. Some states do not mandate enrollment in developmental education by allowing the placement tests to be optional or allowing students to avoid the remedial courses. For example, Florida changed its developmental education courses to be voluntary at all institutions in 2013 (Holzer & Baum, 2017).

Tierney and Duncheon (2013) reported that many more students needed developmental education than were enrolled in the remedial courses, but, without a state mandate, many students enrolled directly in the college-level courses instead or tried for substitute options. Without developmental education, fewer than 10% of students who needed the remediation survived college (Boroch et al., 2010). A longitudinal study of high-school graduates reported that of students across the U.S. who took a developmental course at a community college only 28% continued to earn a bachelor's degree within 8.5 years as compared to 43% of those who did not participate in the optional developmental courses (Attewell et al., 2006). One reason for the low graduation rate of students needing developmental education was the number of remedial courses that students must take before enrolling in the college-level courses. These courses do not count toward

graduation requirements and, thus, increase students' time and credit hours toward graduation.

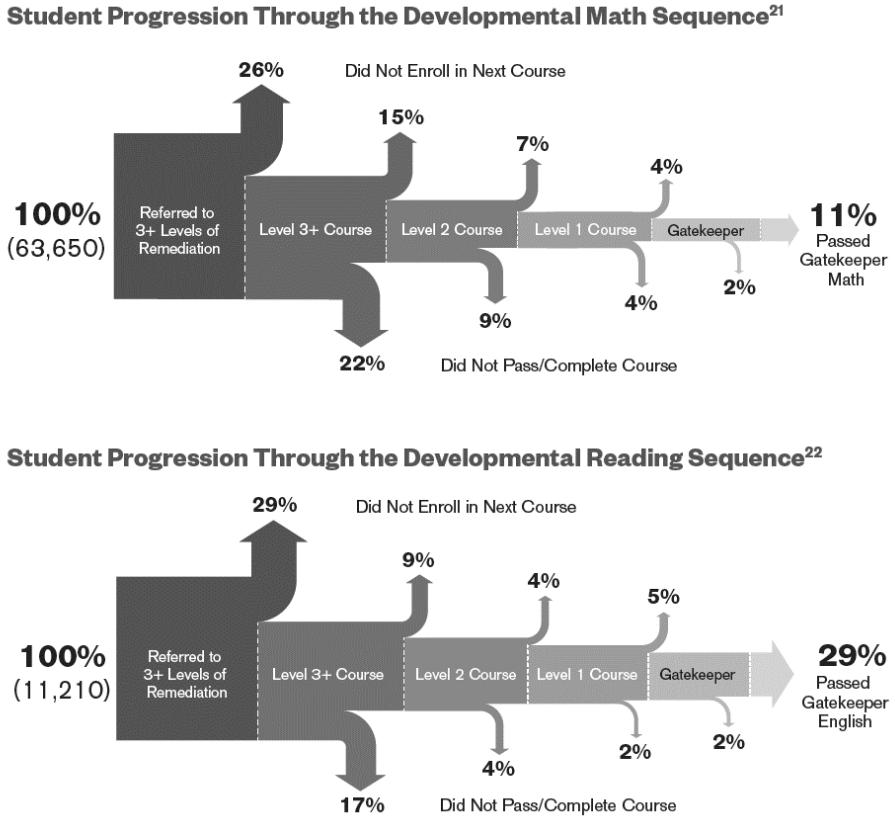
Many community colleges determine which placement exams to use and decide the cutoff scores for placing students into developmental education. While more than 40 different placement exams exist, the two most used placement exams nationally have been ACCUPLACER at 62% of community colleges and COMPASS at 46% (Belfield & Crosta, 2012; Scott-Clayton, 2012). COMPASS was discontinued at the end of 2016, so community colleges had to change to other diagnostic instruments (Pivik, 2016). Because the community colleges determine their own cutoff scores and placement instruments, students may have a 20% chance of being placed in developmental education at one institution while those same scores constitute a 90% chance at another institution (Jaggars et al., 2013).

The inconsistency of placement procedures based on assessment scores resulted in many students being referred to the incorrect or inappropriate developmental courses (Henson, Hern, & Snell, 2017; Scott-Clayton & Stacey, 2015). Also, assessment scores on placement exams do not predict successful completion in remedial courses or the college-level courses. Scott-Clayton and Stacey (2015) reported that "our analysis predicted that nearly a quarter of students assigned to remedial math and a third of students assigned to remedial English could have passed college-level courses with a B or better" (p. 1). Jenkins and Cho (2012) observed that the reading and writing placement scores were not different between students who passed and students who failed. In essence, placement scores are not a contributor to success rates in passing the gatekeeper course (Henson et al., 2017; Scott-Clayton & Stacey, 2015).

Institutions also have the autonomy to determine their developmental education curriculum and sequencing of courses required for students before enrolling in the credit-level courses. Based on the cutoff scores established by each institution, students may be required to take over three levels of remedial courses. The common sequencing includes multiple levels in remedial math, reading, and English composition. Most colleges have a sequence of three levels of composition, three levels of reading, and up to five levels of math (Center for Community College Student Engagement, 2016). According to Jaggars and Stacey (2014), "the necessity of completing several courses before enrolling in college-level courses creates multiple points at which students can exit the sequence, thus forgoing any chance of completing the first college-level (or 'gatekeeper') course in the same subject area" (p. 4).

Students in gatekeeper courses must pass these college-level courses in order to continue on the degree path. Hern (2012) stated that in a multi-state study of 57 community colleges, only 10% of students who began three or more levels in remedial courses passed the gatekeeper class, defined as "the entry-level course in a core subject, such as English or math" (Center for Community College Student Engagement, 2014). Jenkins and Cho (2012) reported that only 56% of a 2005-2006 cohort of students passed a gatekeeper course to continue to a program of study. In Figure 1, Jaggars and Stacey (2014) reported the percentage of students who did not complete a gatekeeper course and, therefore, could not continue to a program of study because of leaving the developmental education sequence.

Figure 1: Student Progression Through the Remedial Sequence



Note: Jaggars, S. S., & Stacey, G. W. (2014, January). *What We Know About Developmental Education Outcomes*. New York, NY: Columbia University, Teachers College, Community College Research Center, p. 5.

Not only did the students not complete the sequence to which they were assigned, but these students were often enrolled in multiple remedial sequences at the same time. According to Merisotis and Phipps (2014), 66% of students in a developmental reading sequence were enrolled in at least three other remedial courses, and only 12% of these students completed a bachelor's degree. The ineffectiveness of students completing the remedial course sequences and then the gatekeeper courses has been attributed to several factors. Boylan (2009) explained that placement exams assess only weak academic competencies and miss the other attributes that are necessary for students' success:

> As accurate as these instruments may be in assessing cognitive skills, however, they do not measure other factors that are equally important to student success. These factors include such things as attitude toward learning, motivation, autonomy, willingness to seek and accept help, desire to affiliate with peers or instructors, or willingness to expend effort on academic tasks…. These factors are generally referred to as noncognitive or affective characteristics because they measure how students feel or what they believe about themselves and learning … [and] at least 25% of how well a student performs in a particular course is related to affective factors. (pp. 14-15)

While students need the academic skills of developmental education, these affective factors could affect performance in these courses. Because of their course performance, students tended to not complete their remedial course sequence (Hern & Snell, 2014). Institutions reported that only 5% of students were still taking the remedial sequence after one year of beginning their coursework (Merisotis & Phipps, 2014). Adams (2014) reported that student surveys indicated that students did not complete the remedial sequence because personal factors overwhelmed the students' abilities to manage. Boylan (2009) explained that other personal issues could hamper students' success:

> In addition to cognitive and affective factors, a variety of personal factors also influence students' likelihood of success in college. These factors would include information such as number of hours students are employed per week, their eligibility for financial aid, the extent to which students have other adult responsibilities such as child care, or whether or not they are native speakers of

> English…. Such factors influence the amount of time and attention students have available to attend courses, do homework, and study. (p. 15)

Students may have affective issues of fear, anxiety, and discouragement with placement into developmental education as well as dealing with personal influences. These factors cause students to not only leave the sequence before the gatekeeper courses but also leave postsecondary education before earning a degree (Hodara & Jaggars, 2014; Jaggars & Stacey, 2014). Edgecombe (2011) found only 33% of students in remedial math courses and 46% of students in remedial reading courses completed their remedial sequence within three years.

An additional hindrance is the tuition costs for remedial courses. Students must pay full tuition prices for the remedial courses without receiving the college credit toward the course series (Community College of Baltimore County, 2017b; Kansas Board of Regents, 2017a). A study in Arkansas calculated that a student's cost of remediation was $546 higher than a general degree (Merisotis & Phipps, 2014). The student's cost for developmental education in Florida was an additional $504 (Bettinger et al., 2013). While these are direct tuition costs paid by the student, these amounts did not include additional costs beyond their monetary investment through their diminished labor productivity (Bettinger et al., 2013; Merisotis & Phipps, 2014).

Nationally, estimated educational costs of student tuition plus institutional expenses ranged from $1 billion to $7 billion annually (Bettinger et al., 2013; Handel & Williams, 2011; Jaggars & Stacey, 2014; Merisotis & Phipps, 2014; Scott-Clayton, 2012). The Arkansas Department of Higher Education, in a multi-year study on academic programs to compare costs of institutional expenses, reported that 2% of four-

year institutions' budgets were spent on developmental education compared to community colleges, which spent 9% of their budgets (Merisotis & Phipps, 2014).

The aforementioned student and institutional costs, which were calculated in the mid-1990s and early 2000s, have since risen. For example, a more recent study in 2009 on developmental summer bridge programs for entry-level students in Texas indicated institutional costs ranging from $62,633 to $296,033 with the average cost paid per student being $1,319. These numbers indicated that the students needed to take an additional four credit hours for the tuition revenues to cover these institutional costs. Given that these were three-credit-hour programs, the institutional costs of the developmental education were too expensive for the benefit (Barnett et al., 2014).

Recommendations for Developmental Education

Despite the high cost of providing developmental education, Merisotis and Phipps (2014) maintained that the financial costs are worth the benefit to both students and institutions:

> If remedial education were terminated at every college and university, it is unlikely that the money would be put to better use.… A remedial education program that enables a significant proportion of remedial students to continue their education after completing remedial courses is beneficial for the institutional bottom line since it enhances revenue that can partially offset costs associated with providing remediation.
>
> What does the nation get for its $1 to $2 billion investment in remedial education? There is considerable evidence that the nation cannot afford to disfranchise even a small portion of the population who has the potential of

> succeeding in college from participating in some form of postsecondary education. Therefore, the costs and benefits associated with providing access to underprepared students and helping them succeed in higher education must be measured accurately. (pp. 73-74)

Merisotis and Phipps (2014) implied that institutions must design reforms and tackle the challenge of developmental education to reduce the costs and bring benefit to the students. Research, evaluation, and accountability continue to overcome some of the weaknesses of developmental education through innovative practices (Boylan et al., 2017; Center for Community College Student Engagement, 2016; Goudas & Boylan, 2012). Institutions have implemented a philosophy of utilizing research and evaluation since 2004, which has resulted in extensive research of longitudinal studies on developmental education redesign. The analysis has now given institutions some "best practices" to implement for the remediation revolution (Center for Community College Student Engagement, 2016; Rutschow & Schneider, 2014). Using data analysis from the Center of Community College Student Engagement (2014), the best practices showed improvement in the three student outcomes of completion of at least one remedial course with a grade of C or better, completion of one gatekeeper course with a grade of C or better, and persistence to the next semester or year.

Academic Restructuring of Developmental Education

The best practices for these outcomes included academic restructuring of high school partnerships and changes in community college developmental education programs. For increased college readiness, many states are changing strategies to align secondary education with higher education. Collaborations between high schools and

colleges include dual enrollment programs, high school partnerships, and summer bridge programs. Community colleges are also changing their developmental education to compressed courses, different placement policies, and accelerated programs.

Almost every community college across the U.S. has offered dual enrollment programs for high school students. Dual enrollment programs allow high school students to take college courses at the same time. Rutschow and Schneider (2014) reported that approximately 4% of high school students took these dual enrollment courses. Qualitative studies from students on the effectiveness of dual enrollment courses reported that students were prepared for the rigor of college courses (Bailey et al., 2015).

Dual enrollment programs and high school partnerships with institutions have helped to align the high school curriculum with the college-level courses and reduce the need for developmental education. Lee College in Texas formed the Gulf Coast Partners Achieving Student Success (GCPASS) to increase dual-credit high school students and decrease the need for developmental education of students graduating from high school. The coordination of the GCPASS program aligned the curriculum between the local high school district and college to include common course outcomes, sequencing, and common grading. This program caused an increase of successful completion of the gatekeeper English and math courses for those students still needing developmental education by 49% and 12% respectively (Center for Community College Student Engagement, 2016).

Along with dual enrollment, institutions partnered with high schools to offer summer bridge programs. The Texas Higher Education Coordinating Board provided the support for many colleges throughout Texas to implement a summer bridge program.

High school graduates attended a summer bridge program in developmental education in addition to an introduction to college. Barnett et al. (2014) studied the effectiveness of these summer bridge programs from eight Texas community colleges and found that students passed the gatekeeper math and English courses at a higher rate than the students who did not participate in the program. While the success of math and English were higher, these students did not show a difference in the completion of a college-level reading course compared to other developmental students who did not participate in a bridge program.

Academic restructuring has also included the change to compressed courses, which shorten the amount of time to take the course from the traditional 16-week timeframe. These courses can be from five to eight weeks in length and then can be followed with another compressed course to complete developmental education (Edgecombe, 2011). Sheldon and Durdella (2014) reported the aggregated success rates from different community colleges of students taking compressed developmental education and found higher success rates. In developmental math, the eight-week compressed course had a 67% completion rate compared to 54% in the 16-week course. Developmental English showed an 87% completion in an eight-week course compared to 57% in 16 weeks. The highest level in the sequence of developmental reading had an 81% completion in eight weeks versus 67% in 16 weeks. The study also reported demographic factors did not impact the completion of the developmental education courses.

The Community College of Denver developed the FastStart program for developmental education in math, reading, and writing (Bragg, Baker, & Puryear, 2010).

The compressed courses combined two levels of math into a one-semester course and two-to-four levels of the English course into one semester. The students were also required to take a college and career success course with any of these compressed course options. For students in the highest level of the compressed developmental math, 85% completed all the developmental education courses and 46% completed the gatekeeper math course within two years. For English developmental education, 77% of students passed the gatekeeper English composition course within three years (Bragg et al., 2010; Jaggars, Edgecombe, & Stacey, 2014).

The California Acceleration Project (CAP) compressed all the developmental education sequencing courses into one semester (Hern, 2012). CAP assisted the 112 community colleges in California to redesign their developmental education courses, so students could complete the gatekeeper courses in math and English faster than the traditional sequence (Hern & Snell, 2013). Snell, a math instructor at Los Medanos College, developed the Path2Stats course and worked with CAP. Path2Stats was a one-semester developmental math course with no minimum placement score before enrolling in the gatekeeper statistics course. The results showed three times higher success rates of the Path2Stats students who completed the gatekeeper statistics than the students in the traditional sequence. Hern, Director of CAP at Chabot College, developed a one-semester English developmental course. By compressing the developmental education sequence into one semester, institutions in California eliminated the many exit points for students to leave the sequence before completing developmental education. In English developmental education in California, the one-semester developmental course increased

completion of the gatekeeper course from 23% to 26% higher than students in multiple semesters of remedial courses (Hern, 2012; Hern & Snell, 2014).

Placement Testing Policies

Henson et al. (2017) and Jaggars et al. (2013) reported that placement test scores did not correlate with gatekeeper course pass rates. The same research reported that many students were incorrectly placed into developmental education. While over 80% of students believed they were prepared for the gatekeeper courses, 67% of these students indicated that they took a placement test and then were placed into a developmental education sequence (Center for Community College Student Engagement, 2016). Because of the lack of evidence for placement tests, Edgecombe (2011) recommended that policies for course placement should not solely be dependent on placement testing.

Washington State Community College (WSCC) in Ohio found that students who took a placement exam a second time had a higher score. To combat the low placement scores, WSCC implemented a mandatory two-hour workshop before taking the college's placement test. This intervention improved the assessment scores and the number of students who tested into developmental education decreased. In math, 27% of students did not need a lower level of developmental education courses and 5% of students were able to eliminate the need for developmental education. In English, 56% of students decreased the level of the developmental education course required and 33% enrolled directly in the gatekeeper course (Center for Community College Student Engagement, 2016).

To change the dependence on placement tests for course assessment, many institutions have implemented multiple measures to determine placement; however, using

multiple measures has not been common because of the time-intensive nature of analyzing each student's record and determining the correct developmental education courses. For example, an English faculty member at a Wisconsin college needed about 10 minutes on each student record to determine placement (Bailey et al., 2015). Nevertheless, institutions that implemented a multiple measures policy have reported higher pass rates of developmental education students.

The Multiple Measure for Placement policy uses several different factors to determine the placement of students in the developmental education courses:

1. Students with high school transcripts from the last five years reflecting an unweighted GPA of 2.6 or higher and four years of high school mathematics, one of which is beyond the Algebra II level, will be exempt from diagnostic placement testing and will be considered college ready for gateway courses.
2. If a recent high school graduate does not meet the high school transcript criteria, the college will use specified ACT or SAT subject area test scores to determine placement. ACT scores must be at least 22 for reading, 18 for English, and 22 for math; and students must score at least 500 in writing, critical reading, and math on the SAT to be exempt for diagnostic placement testing.
3. New-to-the-college students may place into college-level courses if they have previous college credit indicating college-level readiness.
4. If a student does not meet any of the requirements above, the college will administer the diagnostic placement test to determine placement. (Center for Community College Student Engagement, 2016, p. 5)

Using these criteria, institutions have reduced the number of students in developmental education and the pass rates of students in the gatekeeper courses. The Davidson County Community College in North Carolina used this placement and showed that by using the first criteria, 76% of students who placed into the gatekeeper English course passed and 65% of students placed into the gatekeeper math course passed. Using the other criteria, 59% and 48% passed the English and math gatekeeper courses respectively (Center for Community College Student Engagement, 2016).

Several institutions that are part of CAP also implemented the Multiple Measures for Placement. In math, 24% of students at Cuyamaca College and 15% of students at College of the Canyons placed into the gatekeeper math course. After implementing the new placement standards, these institutions reported results of 84% of students at Cuyamaca College and 71% of students at College of the Canyons placing directly into the gatekeeper course. The success rates on the first attempt for the gatekeeper courses remained the same at 67% at Cuyamaca College and 63% at College of the Canyons (Henson et al., 2017).

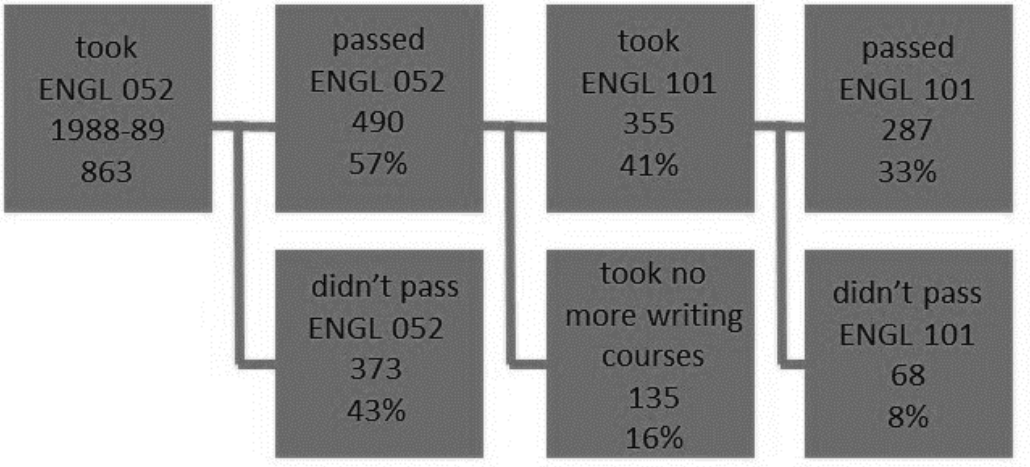
In English, Las Positas College, Skyline College, and Solano College all showed an increase in the number of students qualified to enroll in the gatekeeper English composition course. Only 35% of students at Las Positas College, 42% of students at Skyline College, and 18% of students at Solano College placed into the gatekeeper English composition course. The new multiple measures improved the number of students in gatekeeper English composition to 78% of students at Las Positas College, 68% of students at Skyline College, and 70% of students at Solano College. The course

pass rates remained the same with the increase of students enrolling directly into the gatekeeper courses (Henson et al., 2017).

Accelerated Developmental Education

Peter Adams at the Community College of Baltimore County (CCBC) taught developmental writing and maintained data on students passing the developmental courses as well as the gatekeeper course beginning with a 1988 cohort of students. Adams, Gearhart, Miller, and Roberts (2009) reported that 43% of students did not pass the developmental course, ENGL 052, over a four-year period even with multiple attempts. From the original cohort of students in 1988, only 33% passed the gatekeeper course of English Composition, ENGL 101, within four years.

Figure 2: Longitudinal Data on Students Who Took ENGL 052 in 1988-1989



Note: Adams, P., Gearhart, S., Miller, R., & Roberts, A. (2009). The Accelerated Learning Program: Throwing open the gates. *Journal of Basic Writing, 28*(2), 50-69, p. 52.

Adams et al. (2009) explained how Adams shared these data at the national Conference on Basic Writing in October of 1992. To combat this loss of students, Adams recommended mainstreaming the students who have weak writing skills directly into the gatekeeper course but with extra support. After the conference, several

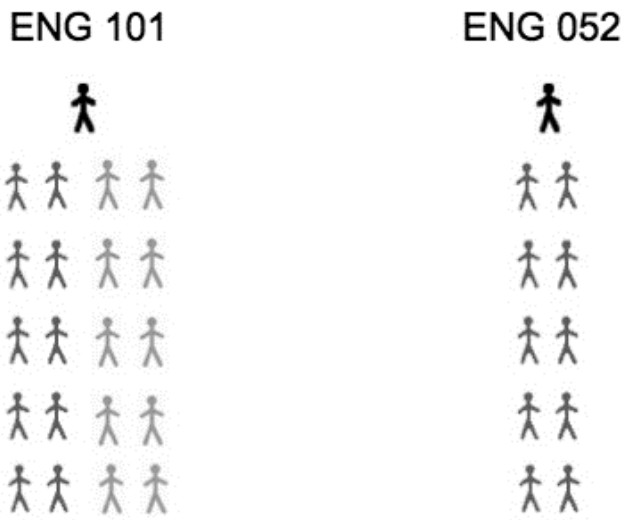
institutions changed developmental writing programs to include variations of mainstreaming throughout the 1990s and into the 2000s (Adams et al., 2009).

Even with Adams's presentation in 1992, CCBC did not change any of its developmental writing course sequence. However, after the internal struggles at the institution were resolved, the English department faculty decided to change the structure of their English developmental courses. In January 2007, the faculty proposed piloting a mainstreaming approach based on the institutions that had established their programs after Adams's presentation in 1992. The first pilot, the Accelerated Learning Program (ALP), was initiated in fall 2007. The goal was that a higher percentage of students would pass the gatekeeper course of English composition (Adams et al., 2009; Coleman, 2015). Jaggars et al. (2014) explained the ALP model of mainstreaming students into the gatekeeper course and adding support:

> In ALP, students who test into upper level developmental writing may enroll directly in college-level English 101 [ENG 101] if they co-enroll in a special ALP section of developmental writing [ENG 052]. Only 10 ALP students are allowed to enroll in any given section of English 101; after each class meeting, these 10 students attend a companion ALP class that is taught by the same English 101 instructor.
>
> While the course pairing eliminates an exit point, ALP's larger purpose is to align the skills taught in developmental writing with the demands of college-level English. The ALP curriculum focuses on assignments and skills that support students' success in their English 101 assignments. (p. 4)

In the ALP pairing, the developmental writing students enrolled in the gatekeeper English composition course (ENG 101) along with the co-requisite of enrollment in the developmental writing course (ENG 052) (indicated by the darker stick figures in Figure 3). The 10 developmental students in the college-level English composition course were in the same class with additional English composition students who did not need any remediation (indicated by the lighter stick figures in Figure 3). Since this pairing included two classes, the students paid for six credit hours although "ENG 101 counts as a three-credit course, but students do not receive credit toward a degree for the companion course (in the state of Maryland, as elsewhere, college credit cannot be awarded for developmental courses)" (Jenkins et al., 2010, p. 2).

Figure 3: Structure of the ALP Courses



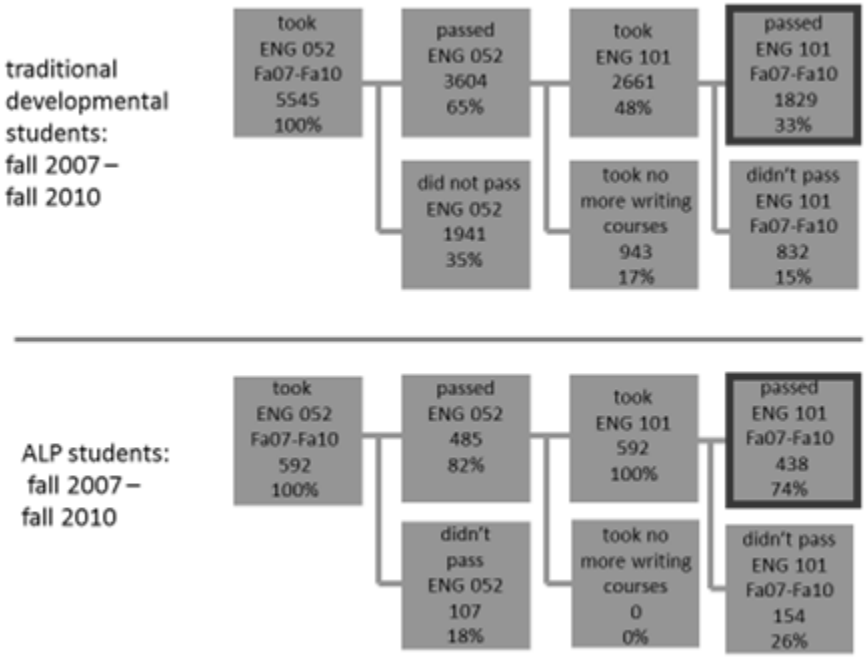
Note: Community College of Baltimore County. (2017b). *What Is ALP?* Retrieved from http://alp-deved.org/what-is-alp-exactly/

With a small cohort of students in the developmental course, ENG 052, the instructor had the flexibility to provide the instruction necessary for passing the ENG 101 course. The instructors used the class time in ENG 052 for answering questions from the

ENG 101 class as well as working on grammar and writing drafts. The design of the curriculum in the ENG 052 course was a reverse design from the course objectives of ENG 101. The extra class time allowed the instructors to deal with the non-cognitive issues such as students not believing that they could succeed, not feeling that they belonged in college, and not coping with life's problems (Adams, 2014; Coleman, 2015; Community College of Baltimore County, 2017b).

Under the ALP structure at CCBC, students must pass both ENG 052 and ENG 101 to complete the sequence; otherwise, students must repeat the entire pairing or repeat only ENG 101 if that was the only course they did not pass. Jenkins et al. (2010) studied the effectiveness of the initial first three semesters of ALP for a total of 137 students compared to the students in the traditional sequence. The authors reported that 74% of developmental students enrolled in ENG 101 passed within one year compared to 38% who passed within one year of completing ENG 052. Cho, Kopko, Jenkins, and Jaggars (2012) continued the effectiveness study by expanding the data from Fall 2007 through Fall 2010 with similar results. Figure 4 summarizes the percentage of students who passed in the traditional model and the percentage of students who passed in the ALP model from 2007 to 2010.

Figure 4: Academic Outcomes of ALP and Non-ALP Students (Fall 2007-Fall 2010 Cohorts)



Note: data from Cho, S., Kopko, E., Jenkins, D., & Jaggars, S. S. (2012). *New Evidence of Success for Community College Remedial English Students: Tracking the Outcomes of Students in the Accelerated Learning Program (ALP)*. [CCRC Working Paper No. 53]. New York, NY: Columbia University, Teachers College, Community College Research Center.; chart from P. Adams, personal communication, June 15, 2017.

Other institutions have initiated ALP since CCBC's fall 2007 pilot. In a study by Coleman (2014), seven colleges of various institutional sizes had success rates from the baseline cohort in the 30% range; ALP cohorts improved to over 70%. In an updated study, Coleman (2015) sampled four of these seven colleges and found the results to be consistent after several more cohorts. Figure 5 summarizes the success rates of ALP at seven colleges of varying sizes and locations in the U.S.

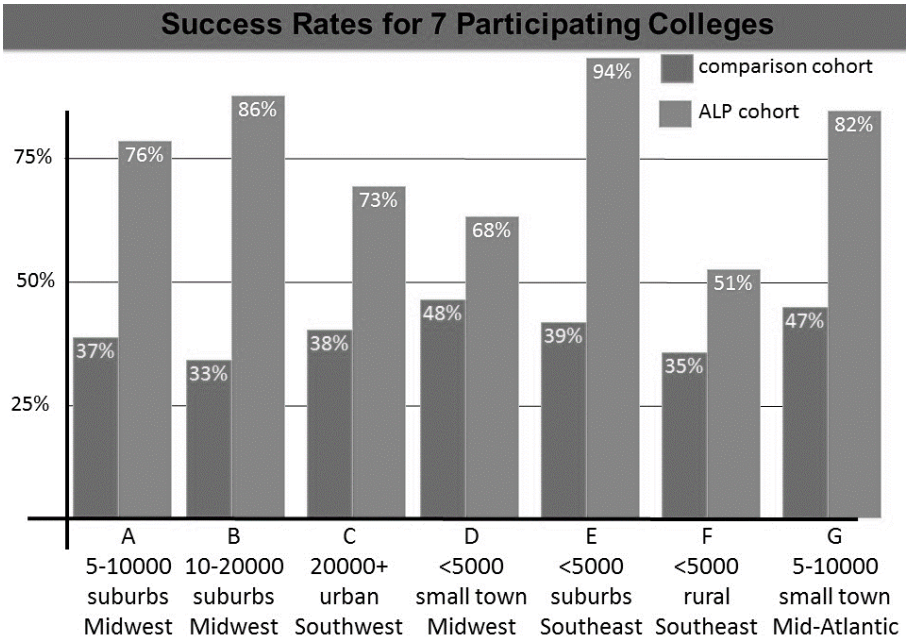


Figure 5: Success Rates for Seven Participating Colleges

Note: data from Coleman, D. (2015). *Replicating the Accelerated Learning Program: Updated Findings*. Charlotte, NC: The Center for Applied Research.; chart from P. Adams, personal communication, June 15, 2017.

The trend for the change in institutions implementing ALP for developmental composition has continued to increase. Coleman (2015) found that 63% of 137 institutions in 35 states have implemented ALP since 2012. Adams (2017) stated that 257 schools across the United States used ALP as of June 2017.

Butler Community College in Kansas joined this movement with the first pilot of ALP in Spring 2013 (McCoskey et al., 2015). The pilot included one section of the higher-level developmental writing paired with the gatekeeper course of English composition and one paired section of the two levels of developmental writing. The progression of adding sections is shown in Appendix B. The data for Butler Community College were comparable to other institutions. The pass rates for the gatekeeper course

when paired with the developmental writing course in Spring 2014, Fall 2015, and Spring 2015 was 65%, 69%, and 67% respectively compared to the baseline group of 39% (Center for Community College Student Engagement, 2016; McCoskey et al., 2015). Buchhorn (2016) wrote the course curriculum for EG060 as shown in Appendix C, and Buchhorn (2015) wrote the course curriculum for EG101 as shown in Appendix D.

Further Research Needed

While various institutions reported improved pass rates of the gatekeeper course and decreased the exit points for developmental students, limited research has focused on the approximately 30% of students who do not pass the gatekeeper course when accelerated with the developmental course. Butler Community College reported that the ALP students in the gatekeeper course passed at a lower rate than the students who placed directly into English Composition I. Even with the support of the developmental course, the comparison was 65% to 69% in Spring 2014 and 69% to 74% in Fall 2014 (Center for Community College Student Engagement, 2016).

The Tennessee Board of Regents (TBR) required all their colleges to implement co-requisite acceleration for all developmental education beginning in Fall 2015. The Tennessee institutions were slightly different from the ALP model. For example, instead of developmental education offered as separate classes, learning support through required lab time was provided for those students. The TBR reported the results from the academic year in which the pass rates of the gatekeeper English composition course increased to 81% although the pass rate for community college students was 62% when taking the co-requisite developmental course. The largest increase in percentage points was by minority students whose improvement was seven times the baseline. However,

the TBR also reported all the developmental students who did not pass the gatekeeper courses. Thirty-six percent of developmental students failed both the gatekeeper course and the learning support required in the course. Out of these students who failed both parts, more than two-thirds failed all courses they attempted (Denley, 2016).

Limited research has reported that women pass developmental education courses at twice the rate of men and that failure of all classes was not correlated to ACT scores (Denley, 2016; Pittman, 2014). Bailey et al. (2015) commented on the success of the improvements in developmental education. However, not all students have succeeded in the accelerated developmental education programs:

> In general, our inclination based on our research is to lean towards a policy in which the majority of developmental students are referred to a co-requisite program with an integrated student support section, such as ALP. For the minority of students who score very poorly, some may still be able to handle the co-requisite model, but others may not. Assessments using multiple measures, combined with in-person advising, should help determine which low-scoring students need a more sustained and intensive developmental education program. For students who fall into this category, we need further research to determine how best to accelerate them into a college-level program of study. (Bailey et al., 2015, p. 135)

Summary

Higher education evolved from institutions dedicated to educating clergy, and this education was only available to privileged white males. Over time, the institutions changed their criteria and higher education became oriented toward career development,

and education for all people. Throughout the history of higher education, the students entering these institutions did not have the necessary academic abilities to be at the level required. Learning assistance programs have grown into a field of developmental education for those students lacking the cognitive skills of reading, writing, or mathematics.

Criticism continues to report the low numbers of students completing developmental education. Gatekeeper courses have encouraged a change in the structure of developmental education. This change entailed accelerating students through developmental education courses and passing gatekeeper courses by using multiple measures for placement and implementing an ALP model. This literature review has illustrated the process through which developmental education expanded and has cited the research and results from various programs throughout the United States. Traditional developmental education sequencing has been improved; however, further study is warranted on the fail rates. Chapter 3 includes the research design, selection of participants, measurement, data collection procedures, data analysis and hypothesis testing, and limitations.

Chapter 3

Methods

This study examined the differences in the characteristics of Butler Community College students who passed the college-level English composition course using the ALP model with the students who did not pass the English composition course. This chapter includes a description of the research design, selection of participants, measurement, data collection procedures, data analysis, hypothesis testing, and limitations of this study.

Research Design

A quantitative research method was utilized in this study using a descriptive research design. The methodology selected in this study provided an exploratory view of the differences of the characteristics of students passing both the English composition course and the co-requisite remedial course with the students who did not pass both courses at a Kansas community college. The independent variables were the clusters of students in P101 (students who passed) and NP101 (students who did not pass). The dependent variables for this study included personal demographics of sex, age, ethnicity, and residency. The academic dependent variables were current credit hours taken in the same semester and including ALP, previous credit hours completed before the semester of ALP, degree declared, and co-enrollment in a remedial reading course with ALP.

Selection of Participants

All students taking classes at a community college in Kansas served as the target population. In 2017, the enrollment of students at Butler Community College was 9,190 students (National Center for Education Statistics, 2017). The number of students who completed EG101 at Butler Community College during the Fall 2016 and Spring 2017

semesters was 3,379 (S. Bradley, personal communication, July 18, 2017). The sample for this study included 391 students who completed the ALP pairings of EG101 with the co-requisite EG060 during the Fall 2016 and Spring 2017 semesters. The archival data of students was chosen based on cluster sampling, which is defined as selecting groups (Lunenberg & Irby, 2008). The clusters chosen were all Butler Community College students enrolled in the course of EG101 while co-enrolled in EG060. The data were collected from the Office of Research and Institutional Effectiveness at Butler Community College.

Measurement

Archival data from the institution's student information system were obtained for this study. Participants were divided into groups: P101 for the students who passed the EG101 course and NP101 for the students who did not pass the EG101 course when enrolled in ALP. The grouping of students by pass rates (passing, not passing) was determined for each student by the final grade the instructor recoded for individual students. Students who had a recorded grade of A, B, and C were coded as passing while students who had a D, F, WD (withdraw by student), or WT (withdraw by teacher) were coded as not passing.

Personal demographic dependent variables included sex, age, ethnicity, and residency. Student sex was coded by M (male) and F (female). Student age was measured by the amount of years at the end of the semester in which the courses were completed. Student ethnicity was identified from the data information collected by the Registrar's Office. Ethnicity was coded by the categories of W (White), B (Black), H (Hispanic), and O (Other: Asian, American Indian, Mixed, and Undeclared). Residency

was measured by the students' permanent address. BC Resident indicated students who were Kansas residents and lived in Butler County, the same county as the institution. KS Resident—Out of BC designated students who were Kansas residents but had a permanent address outside of the county. Out of State described students whose permanent address was from outside the state of Kansas.

Academic demographics dependent variables included current credit hours, previous credit hours, degree declared, and remedial reading courses. Current credit hours were measured by the amount of credit hours in which students were enrolled for the semester in which the students were enrolled in ALP. Previous credit hours were measured by the amount of credit hours that the students had completed prior to the semester in which the students were enrolled in ALP. The degree declared included Associate in Arts, Associate in Science, Associate in Applied Science, and Non-Degree Seeking. The final coding was for the co-enrollment with ALP in a remedial reading course: RR was for co-enrolled in a remedial reading course in the same semester and NR for not co-enrolled in a remedial reading course.

According to Lunenburg and Irby (2008), "validity is the degree to which an instrument measures what it purports to measure" (p. 181) and "reliability is the degree to which an instrument consistently measures whatever it is measuring (p. 182). The data collected were based on actual behaviors, and no instrument was used. Therefore, the validity and reliability of the measurement were not of concern.

Data Collection Procedures

In January 2018, the researcher requested permission to conduct the study from the Baker University Institutional Review Board (IRB) (see Appendix E) and received approval (see Appendix F). The researcher received approval from Butler Community College to conduct the research in January 2018 (see Appendix G). The Office of Research and Institutional Effectiveness at Butler Community College retains all student data, which is made available using Excel spreadsheets. The researcher requested by email the Excel spreadsheets of End of Term (EOT) student data from the Office of Research and Institutional Effectiveness for all students enrolled in the English courses of EG060, EG101, RD011, and RD012 at Butler Community College for the Fall 2016 and Spring 2017 semesters. Participant data from Butler Community College were reported based on anonymous student identification numbers and were provided to the researcher. The researcher did not have any personal identifying information about the participants.

The researcher narrowed the archival data in the Excel spreadsheets to only students in the ALP sections of EG101 for each semester. The researcher used anonymous student identification numbers to then cross-reference the students in RD011 and RD012 with the students in EG101. With the multiple Excel files, the researcher created one Excel spreadsheet by combining the semesters and then clustering students into the groups of P101 and NP101. That Excel spreadsheet was downloaded into SPSS software for analysis.

Data Analysis and Hypothesis Testing

Data were analyzed using SPSS software to test the hypotheses of the research questions. The level of significance was set at .05 for all statistical analyses.

RQ1. To what extent was there a difference of sex between P101 and NP101 students?

***H1*.** There was a difference of sex between P101 students and NP101 students.

Descriptive analysis was used to test H1. The rationale for using descriptive analysis was to explain the data. The variable used in this hypothesis was categorical and descriptive analysis "refers to what is typical and how much data variation there is" (Tanner, 2012, p. 20).

RQ2. To what extent was there a difference of age between P101 and NP101 students?

***H2*.** There was a difference of age between P101 students and NP101 students.

An independent samples *t*-test was conducted to address RQ2. The rationale for using an independent samples *t*-test was to test if the two mutually exclusive groups were different. The mean age of students in P101 was compared to the mean age of students in NP101.

RQ3. To what extent was there a difference of ethnicity between P101 and NP101 students?

***H3*.** There was a difference of ethnicity between P101 students and NP101 students.

Descriptive analysis was used to test H3. The rationale for using descriptive analysis was to explain the data because of the categorical variable.

RQ4. To what extent was there a difference of residency between P101 and NP101 students?

H4. There was a difference of residency between P101 students and NP101 students.

Descriptive analysis was used to test H4. The rationale for using descriptive analysis was to explain the data because of the categorical variable.

RQ5. To what extent was there a difference in current credit hours taken in the same semester and including ALP between P101 and NP101 students?

H5. There was a difference of current credit hours taken in the same semester and including ALP between P101 students and NP101 students.

An independent samples *t*-test was conducted to address RQ5. The rationale for using an independent samples *t*-test was to test if the two mutually exclusive groups were different. The mean of the current credit hours taken in the same semester and including ALP of students in P101 was compared to the mean of the current credit hours taken in the same semester and including ALP of students in NP101.

RQ6. To what extent was there a difference of previous credit hours completed before the semester of ALP between P101 and NP101 students?

H6. There was a difference of previous credit hours completed before the semester of ALP between P101 students and NP101 students.

An independent samples *t*-test was conducted to address RQ6. The rationale for using an independent samples *t*-test was to test if the two mutually exclusive groups were different. The mean of the previous credit hours completed before the semester of ALP of students in P101 was compared to the mean of the previous credit hours completed before the semester of ALP of students in NP101.

RQ7. To what extent was there a difference of degree declared between P101 and NP101 students?

H7. There was a difference of degree declared between P101 students and NP101 students.

Descriptive analysis was used to test H7. The rationale for using descriptive analysis was to explain the data because of the categorical variable.

RQ8. To what extent was there a difference in co-enrollment with ALP in a remedial reading course between P101 and NP101 students?

H8. There was a difference in co-enrollment with ALP in a remedial reading course between P101 students and NP101 students.

Descriptive analysis was used to test H8. The rationale for using descriptive analysis was to explain the data because of the categorical variable.

Limitations

Lunenburg and Irby (2008) described limitations as "factors that may have an effect on the interpretation of the findings or on the generalizability of the results" (p. 133). Limitations of this study included the following:

1. The demographic information was self-reported and may not have been an accurate representation.
2. A textbook update occurred in EG101 between Fall 2016 and Spring 2017 semesters (see Appendix H). The two semesters may not have been identical as instructional strategies may have changed with different textbooks between the semesters.

3. Course instruction may have been different between instructors so not all the final grades were equivalent.
4. The sample came from one institution and may not be generalized to all institutions using ALP.

Summary

This study focused on the demographic differences between students who passed and students who did not pass the ALP EG101 course. Data for every student included in the analysis included personal demographics of sex, age, ethnicity, and residency. Every student included in the data analyses also had the academic demographics of current credit hours, previous credit hours, degree declared, and remedial reading. This chapter included a description of the research design, selection of participants, measurement, data collection procedures, data analysis, hypothesis testing, and limitations of this study. Chapter 4 of this study presents the results of the analysis of the data and hypothesis testing.

Chapter 4

Results

The purpose of this quantitative study was to examine the differences in student characteristics of the Butler Community College students enrolled in the first complete academic year of full-scale ALP implementation and who successfully passed EG101 compared to those students who did not pass EG101. This chapter presents the descriptive statistics and the results of the analysis of the data and hypothesis testing.

Descriptive Statistics

All students taking classes at a community college in Kansas served as the target population. The number of students who completed EG101 at Butler Community College during the Fall 2016 and Spring 2017 semesters was 3,379 (S. Bradley, personal communication, July 18, 2017). The sample for this study included 391 students who completed the ALP pairings of EG101 with the co-requisite of EG060 during those semesters. The archival data of students was chosen based on cluster sampling, which is defined as selecting groups (Lunenberg & Irby, 2008). The data were collected from the Office of Research and Institutional Effectiveness at Butler Community College.

The personal demographic characteristics of sex, age, ethnicity, and residency provided information for the 391 students who enrolled in the ALP EG 101 from Fall 2016 and Spring 2017. The average age of the students was 21.2 years; the youngest student was 17.5 years and the oldest student was 53.2 years. Table 2 summarizes the sex of the students in ALP EG101 with the number of male students and the number of female students as well as the percentage in each category.

Table 2

Sex of Students in ALP EG101

	N	*%*
Male	194	49.6%
Female	197	50.4%
Total	391	

Table 3 summarizes the ethnicity of the students in ALP EG101 with the number of White, Black, Hispanic, and Other students' ethnicity as well as the percentage in each category.

Table 3

Ethnicity of Students in ALP EG101

	N	*%*
White	160	40.9%
Black	85	21.7%
Hispanic	84	21.5%
Other	62	15.9%
Total	391	

Note: Other ethnicity was Asian, American Indian, Mixed, and Undeclared

Table 4 summarizes the residency of students in ALP EG101 with the number of BC Resident, KS Resident—Out of BC, and Out-of-State students as well as the percentage in each category.

Table 4

Residency of Students in ALP EG101

	N	*%*
BC Resident	60	15.3%
KS Resident—Out of BC	294	75.2%
Out of State	37	9.5%
Total	391	

Note: BC Resident indicated students who were Kansas residents and lived in Butler County which is the same county as the institution. KS Resident—Out of BC designated students who were Kansas residents but had a permanent address outside of Butler County. Out of State described students whose permanent address was from outside the state of Kansas.

The academic demographic characteristics of current credit hours, previous credit hours, degree declared, and remedial reading course provided more information for the 391 students who enrolled in the ALP EG 101 from Fall 2016 and Spring 2017. The average current credit hours of the students were 12.6 credit hours; the minimum credit hours were six while the maximum was 25 credit hours. The average previous credit hours were 9.1 credit hours with a minimum of zero credit hours and a maximum of 59 credit hours. Table 5 summarizes the degree declared for the students in ALP EG101 with the number of Associate in Arts, Associate in Science, and Associate in Applied Science students as well as the percentage in each category.

Table 5

Degree Declared for Students in ALP EG101

	N	*%*
Associate in Arts	98	25.1%
Associate in Science	248	63.4%
Associate in Applied Science	45	11.5%
Total	391	

Table 6 summarizes the residency of the students in ALP EG101 with the number of students not co-enrolled in a remedial reading course and the number of students co-enrolled in a remedial reading course as well as the percentage in each category.

Table 6

Number of Students Co-enrolled in Remedial Reading with ALP EG101

	N	*%*
Not Co-enrolled in Remedial Reading	313	80.1%
Co-Enrolled in Remedial Reading	78	19.9%
Total	391	

Hypothesis Testing

Eight hypotheses were examined in the research study guided by the eight research questions. Five hypotheses were examined by using descriptive analysis to explain the data because of the categorical variables. Three hypotheses used an independent samples t-test to test if the two mutually exclusive groups were different.

RQ1. To what extent was there a difference of sex between P101 and NP101 students?

***H1*.** There was a difference of sex between P101 students and NP101 students.

Descriptive analysis was used to test H1. The rationale for using descriptive analysis was to explain the data. The descriptive data shown in Table 7 provided the number of male students and the number of female students with the percentages in P101 and NP101. Ninety-nine males and 140 females were in P101 while 95 males and 57 females were in NP101. There was a difference in sex between P101 and NP101. Male students comprised 41.4% of P101, and 62.5% were male students in NP101. Female students comprised 58.6% of P101, and 37.5% were female students in NP101. Male students were represented at 21.1% higher in NP101 than the male students in P101. Female students were represented at 21.1% higher in P101 than the female students in NP101.

Table 7

Sex of Students Passing and Non-passing ALP EG101

	Male		*Female*		*Total*
	N	*%*	*N*	*%*	*N*
Passing (P101)	99	41.4%	140	58.6%	239
Non-Passing (NP101)	95	62.5%	57	37.5%	152
Total	194		197		391
Difference		21.1%		21.1%	

RQ2. To what extent was there a difference of age between P101 and NP101 students?

***H2*.** There was a difference of age between P101 students and NP101 students.

An independent samples *t*-test was conducted to address RQ2. The rationale for using an independent samples *t*-test was to test if the two mutually exclusive groups were different. The results of the independent samples *t*-test indicated there was no difference between the two means, $t = -0.159$, $df = 389$, $p = 0.874$. The mean age of students in P101 ($M = 21.14$, $SD = 4.77$) was not different from the mean age of students in NP101 ($M = 21.23$, $SD = 5.47$).

RQ3. To what extent was there a difference of ethnicity between P101 and NP101 students?

***H3*.** There was a difference of ethnicity between P101 students and NP101 students.

Descriptive analysis was used to test H3. The rationale for using descriptive analysis was to explain the data. The descriptive data shown in Table 8 provided the number in the ethnicity groups with the percentages in P101 and NP101. In the White ethnicity group, 107 students were in P101 and 53 students were in NP101. In the Black ethnicity group, 44 students were in P101 and 41 students were in NP101. In the Hispanic ethnicity group, 50 students were in P101 and 34 students were in NP101. In the Other ethnicity group, 38 students were in P101 and 24 students were in NP101. There was a difference in ethnicity between P101 and NP101. The White ethnicity group comprised 44.8% of P101 and 34.9% of NP101. The Black ethnicity group comprised 18.4% of P101 and 27% in NP101. The data showed the White ethnicity group was 9.9%

higher in P101 than the White ethnicity group in NP101, and the Black ethnicity group was 8.6% higher in NP101 than the Black ethnicity group in P101.

Table 8

Ethnicity of Students Passing and Non-passing ALP EG101

	White		*Black*		*Hispanic*		*Other*		*Total*
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*
Passing (P101)	107	44.8%	44	18.4%	50	20.9%	38	15.9%	239
Non-Passing (NP101)	53	34.9%	41	27.0%	34	22.4%	24	15.8%	152
Total	160		85		84		62		391
Difference		9.9%		8.6%		1.5%		0.1%	

Note: Other ethnicity was Asian, American Indian, Mixed, and Undeclared

RQ4. To what extent was there a difference of residency between P101 and NP101 students?

***H4*.** There was a difference of residency between P101 students and NP101 students.

Descriptive analysis was used to test H4. The rationale for using descriptive analysis was to explain the data. The descriptive data shown in Table 9 provided the number in the groups of residencies with the percentages in P101 and NP101. The Butler County (BC) Resident group had 37 students in P101 and 23 students in NP101. The Kansas (KS) Resident—Out of Butler County group had 184 students in P101 and 110 students in NP101. The Out-of-State group had 18 students in P101 and 19 students in NP101. There was a difference in residency between P101 and NP101. The data

described that the KS Resident—Out of BC had 4.6% more students in P101 than the KS Resident—Out of BC students in NP101. Out of State had 5% more students in NP101 than Out-of-State students in P101.

Table 9

Residency of Students Passing and Non-passing ALP EG101

	BC Resident		*KS Resident—Out of BC*		*Out of State*		*Total*
	N	*%*	*N*	*%*	*N*	*%*	*N*
Passing (P101)	37	15.5%	184	77.0%	18	7.5%	239
Non-Passing (NP101)	23	15.1%	110	72.4%	19	12.5%	152
Total	60		294		37		391
Difference		0.4%		4.6%		5.0%	

Note: BC Resident indicated students who were Kansas residents and lived in Butler County, the same county as the institution. KS Resident—Out of BC designated students who were Kansas residents but had a permanent address outside of Butler County. Out of State described students whose permanent address was from outside the state of Kansas.

RQ5. To what extent was there a difference in current credit hours taken in the same semester and including ALP between P101 and NP101 students?

***H5*.** There was a difference of current credit hours taken in the same semester and including ALP between P101 students and NP101 students.

An independent samples *t*-test was conducted to address RQ5. The rationale for using an independent samples *t*-test was to test if the two mutually exclusive groups were different. The results of the independent samples *t*-test indicated there was a statistically significant difference between the two means, $t = 2.005$, $df = 389$, $p = 0.046$. The mean

of current credit hours for students in P101 (M = 12.83, SD = 2.84) was significantly higher than the mean of current credit hours for students in NP101 (M = 12.21, SD = 3.18).

RQ6. To what extent was there a difference in previous credit hours completed before the semester of ALP between P101 and NP101 students?

***H6*.** There was a difference of previous credit hours completed before the semester of ALP between P101 students and NP101 students.

An independent samples *t*-test was conducted to address RQ6. The rationale for using an independent samples *t*-test was to test if the two mutually exclusive groups were different. The results of the independent samples *t*-test indicated a statistically significant difference between the two means, $t = 6.579$, $df = 389$, $p < 0.001$. The mean of previous credit hours for students in P101 (M = 11.29, SD = 8.73) was significantly higher than the mean of previous credit hours for students in NP101 (M = 5.60, SD = 7.67).

RQ7. To what extent was there a difference of degree declared between P101 and NP101 students?

***H7*.** There was a difference of degree declared between P101 students and NP101 students.

Descriptive analysis was used to test H7. The rationale for using descriptive analysis was to explain the data. The descriptive data shown in Table 10 provided the number of students in the groups of degree declared with the percentages in P101 and NP101. For the Associate of Arts degree, 62 students were in P101 and 36 students were in NP101. For the Associate of Science degree, 146 students were in P101 and 102 students were in NP101. For the Associate of Applied Science degree, 31 students were

in P101 and 14 students were in NP101. There was a difference in degree declared between P101 and NP101. The results of the descriptive data showed the Associate of Arts students had 2.2% more students in P101 than the Associate of Arts students in NP101. Associate of Science students had 6% more students in NP101 than Associate of Science students in P101. Associate of Applied Science had 3.8% more students in P101 than Associate of Applied Science students in NP101.

Table 10

Degree Declared for Students Passing and Non-passing ALP EG101

	Associate of Arts		*Associate of Science*		*Associate of Applied Science*		*Total*
	N	*%*	*N*	*%*	*N*	*%*	*N*
Passing (P101)	62	25.9%	146	61.1%	31	13.0%	239
Non-Passing (NP101)	36	23.7%	102	67.1%	14	9.2%	152
Total	98		248		45		391
Difference		2.2%		6.0%		3.8%	

RQ8. To what extent was there a difference in co-enrollment with ALP in a remedial reading course between P101 and NP101 students?

***H8*.** There was a difference in co-enrollment with ALP in a remedial reading course between P101 students and NP101 students.

Descriptive analysis was used to test H8. The rationale for using descriptive analysis was to explain the data. The descriptive data shown in Table 11 provided the number of students not co-enrolled in a remedial reading course in the same semester and

the number of students co-enrolled in a remedial reading course in the same semester with the percentages in P101 and NP101. The number of students not co-enrolled in a remedial reading course was 191 students in P101 and 122 students in NP101. The number of students co-enrolled in a remedial reading course was 48 students in P101 and 30 students were in NP101. There was not a difference in co-enrollment with ALP in a remedial reading course between P101 and NP101. The data showed a difference of only 0.4% between P101 and NP101 when students were not co-enrolled in remedial reading, and a difference of only 0.4% between the P101 and NP101 when students were co-enrolled in remedial reading.

Table 11

Co-enrollment in a Remedial Reading Course Passing and Non-passing with ALP EG101

	Not Co-Enrolled		*Co-Enrolled*		*Total*
	N	*%*	*N*	*%*	*N*
Passing (P101)	191	79.9%	48	20.1%	239
Non-Passing (NP101)	122	80.3%	30	19.7%	152
Total	313		78		391
Difference		0.4%		0.4%	

Summary

Chapter 4 addressed the research questions which explored the differences in the characteristics of passing students and non-passing students who were enrolled in developmental English courses and co-enrolled in the entry-level EG101 course in the same semester during Fall 2016 and Spring 2017. Results were presented through

hypothesis testing using descriptive analysis and the independent samples *t*-test. The age of students had no statistically significant difference between P101 and NP101. There was a statistically significant difference between P101 students and NP101 in current credit hours and previous credit hours. The current credit hours and previous credit hours were higher in P101 students than for the NP101 students. Chapter 5 provides a summary of the study, major findings, implications for future actions, and recommendations for future studies on this topic, and conclusions.

Chapter 5

Interpretation and Recommendations

Chapter 1 of this study provided an introduction and background on English developmental education. This chapter also included information on the statement of the problem, purpose and significance of the study, delimitations, assumptions, research questions, and definitions. Chapter 2 provided a literature review that began with the historical background of developmental education in the U.S. and continued with the current status of developmental education including the objectives and criticisms of developmental education, research on recommendations for developmental education with academic restructuring and placement testing policies, and accelerated developmental education with further research needed in this field. Chapter 3 contained the methodology of the study, which included the research design, selection of participants, measurement, data collection procedures, data analysis and hypothesis testing and limitations. Chapter 4 reported the results from a quantitative study of passing students' and non-passing students' characteristics and the descriptive statistics and hypothesis testing. Chapter 5 provides a review of the study, findings related to the literature, and conclusions of implications and recommendations.

Study Summary

Overview of the problem. Butler Community College developmental students passed EG101 with less than a 70% rate even with the increased 28% effectiveness of ALP over the traditional remedial sequence during three semesters of limited sections in Spring 2014 through Spring 2015 (McCoskey et al., 2015). With full-scale ALP implementation for Fall 2016 and Spring 2017, the pass rates of students in EG101 were

62% and 56% respectively (S. Bradley, personal communication, July 18, 2017). The characteristics of the approximately 40% of students who failed is unknown.

While the effectiveness of the developmental programs has much published research including from some of the over 280 institutions using the ALP model, no research has been conducted on the characteristics of the students who do not successfully complete the mainstreamed college-level course with the remedial course (Center for Community College Student Engagement, 2016; Coleman, 2014; Coleman, 2015; Community College of Baltimore County, 2017a; Community College of Baltimore County, 2017c). There may be differences in personal or academic demographics between the group of students who passed EG101 and the group of students who did not pass the course; however, these differences have not been studied.

Purpose statement and research questions. The purpose of this quantitative study was to examine the differences in student characteristics between Butler Community College students enrolled in the first complete academic year of full-scale ALP implementation and who successfully passed EG101 compared to those students who did not pass EG101. This study was guided by eight research questions.

Review of the methodology. All students taking classes at a community college in Kansas served as the target population. The number of students who completed EG101 at Butler Community College during the Fall 2016 and Spring 2017 semesters was 3,379 (S. Bradley, personal communication, July 18, 2017). Of these students, those who completed the ALP pairings of EG101 with the co-requisite of EG060 during those semesters were the sample, which was comprised of 391 students. The archival data of students was chosen based on cluster sampling, which is defined as selecting groups

(Lunenberg & Irby, 2008). The data were collected from the Office of Research and Institutional Effectiveness at Butler Community College.

Major findings. The results of the independent samples *t*-test indicated no statistically significant difference in the mean age of the students between P101 and NP101. There was a statistically significant difference between P101 students and NP101 in current credit hours and previous credit hours. The current credit hours and previous credit hours were higher in P101 students than for the NP101 students.

Using descriptive analysis, a personal characteristic of sex showed male students were represented at 21.1% higher in NP101 than the male students in P101. Female students were represented at 21.1% higher in P101 than the female students in NP101. The data also showed a personal characteristic of the Black ethnicity group at 8.6% higher in NP101 than the Black ethnicity group in P101; the White ethnicity group was 9.9% higher in P101 than the White ethnicity group in NP101.

Pertaining to the academic characteristic of residency, the data described that the KS Resident—Out of BC had 4.6% more students in P101 than the KS Resident—Out of BC students in NP101. Out of State had 5% more students in NP101 than Out-of-State students in P101. Another academic characteristic result of the descriptive data showed that students with a degree declared as Associate of Science had 6% more students in NP101 than Associate of Science students in P101.

Findings Related to the Literature

The findings in this study were for the English developmental education students at Butler Community College. The students enrolled in developmental English accounted for 24.6% of the total developmental students in Fall 2016 and Spring 2017 at Butler

Community College (L. Ryan, personal communication, February 21, 2018). This study related to previous literature of the characteristics of developmental students.

The research identified characteristics of students enrolled in developmental education as young, male, minorities, and full-time students (Alvarez, 2008; Bailey & Jaggars, 2016; Barton, 1983). The ALP students in this study were 49.6% male and 59.1% minority ethnicity of Black, Hispanic, and Other. The developmental students in this study were enrolled in an average of 12.6 current credit hours. The Kansas Board of Regents (2017b) showed the first-time degree-seeking cohort enrolled in English developmental education in Kansas included 22.5% of students ages 20-24 years with only 9.8% over 25 years old. The average age of students in this study was 21.2 years. Because the high percentage of students in developmental education were under the age of 25 years, the findings of no significant difference in the mean age of students between P101 and NP101 is consistent with previous studies.

Research from Alverez (2008) reported that female students were more successful in the gatekeeper English course, but this research did not include developmental education courses. Pittman (2014) found in a developmental English class that females were almost twice as successful as males, but this study was not in a co-requisite model. The current study's descriptive data also showed female students were more successful in EG101 with 58.6% of the P101 group as female students.

Bailey and Jaggars (2016) and Attewell et al. (2006) reported that minorities have been placed into developmental education at higher rates than their white counterparts. The descriptive data for the current study showed that minorities of Black and Hispanic ethnicity accounted for 21.7% and 21.5% respectively even though Black ethnicity

accounts for only 8% and Hispanic ethnicity accounts for only 12% of Butler Community College's total enrollment (National Center for Education Statistics, 2017). The White students had 65% of total enrollment at Butler Community College, but only 40.9% of the total enrolled in ALP (National Center for Education Statistics, 2017).

Conclusions

This study focused on the demographic differences between the students who passed and the students who did not pass the ALP EG101 course. Personal demographic data of sex, age, ethnicity, and residency was reviewed for every participant. In addition, student academic demographic data of current credit hours, previous credit hours, degree declared, and remedial reading enrollment was reviewed for every participant.

Implications for action. During Fall 2016 and Spring 2017, 391 Butler Community College students enrolled in ALP EG101 based solely on placement scores. Butler Community College could change the placement into developmental education from the institution's set cutoff score to the Multiple Measure for Placement policy by the Center for Community College Student Engagement (2016). The Developmental Education Working Group recommended "adoption of research-supported multiple measures in addition to tests to be used for placement" for all Kansas institutions (Kansas Board of Regents, 2014, p. 16). Henson et al. (2017) showed that the number of students enrolled directly in the gatekeeper English course increased when multiple measures were implemented. Bailey et al. (2015) explained how developmental education could be effective:

> The goal of the intake process … is to help students choose and successfully enter a program of study as quickly as possible. For developmental education to play

> an effective part in such a process, colleges must redesign three key elements of their approach to remediation: assessment and placement, curriculum, and instruction. (p. 129)

When an institution utilizes multiple measures for placement into developmental education, support should be provided to help students prepare for the diagnostic testing when additional testing is required. For example, Washington State Community College in Ohio found that students who took a placement exam a second time had a higher score and implemented a mandatory two-hour workshop before taking the college's placement test (Center for Community College Student Engagement, 2016). The Developmental Education Working Group recommended that institutions incorporate test preparation in their developmental education policies:

- Test preparation and refresher options for students preparing to take placement tests for the first time or re-taking placement tests.
- Placement test re-take options that allow students to advance in or beyond developmental coursework when they are appropriately prepared. (Kansas Board of Regents, 2014, p. 16)

This study found statistically significant fewer current credit hours and previous credit hours for the NP101 students. To increase the pass rate of these non-passing students, the accelerated ALP curriculum needs to be integrated with the student services of intrusive in-person academic advising. An intrusive academic advisor works with students to clarify goals, select courses and credit hour academic load, and encourages student success throughout the time the students are enrolled in the institution (Donaldson, McKinney, Lee, & Pino, 2016).

Academic advising for these students could be vital to their success since "at community colleges, the academic advisor is the most important resource to help students clarify their goals and select courses that lead toward those goals" (Bailey et al., 2015, p. 58). In contrast to traditional academic advising, the intrusive academic advisor knows the students' goals and helps the students by knowing the accelerated program and then follows up with the students throughout the semester and throughout the time the students are enrolled in college. The benefits to intrusive academic advising are students are assigned an advisor throughout the time at the institution and the students are required to participate in the advising process and degree-planning activities (Donaldson et al., 2016). Intrusive academic advising could be beneficial to developmental students as they receive personalized support and direction along with advisors' teaching the students life skills (Bailey et al., 2015; Donaldson et al., 2016).

This study found that non-passing male students comprised 62.5% and Black ethnicity had 27% in the NP101 group. Classroom instruction can be directed toward helping males and Blacks who are not passing. Wood (2017) presented strategies to help instructors reach males as well as minorities:

Relational *Recommendations of Classroom Faculty*

- Warmly welcome students to each class session
- Recognize that students and families want the best
- Validation messages that affirm ability and promote effort
- Know their name and use it
- Critique privately, praise publicly
- Discuss challenges you've experienced and overcame

- Recognize the influence of microaggressions on student success
- Be intentional about warmly welcoming all students to each class session
- Connecting students with people, not services (p. 37)

Recommendations for future research. The current study could be expanded to include additional variables. The Kansas Board of Regents (2017b) reports developmental education data on students receiving Pell Grants. The federal government gives financial aid money to low-income students "defined as students from families making less than $30,000" to attend college through Pell Grants (Nichols, 2015, p. 12). Pell Grant students must then "meet satisfactory academic progress (SAP) requirements to maintain eligibility…maintain a cumulative grade point average (GPA) of 2.0 or higher and to complete at least two thirds of the course credits they attempt" (Schudde & Scott-Clayton, 2015, p. 944). These students receiving Pell Grants graduate at a 14% lower rate than non-Pell Grant students nationwide (Nichols, 2015). Knowing the Pell Grant students pass rates can increase Butler Community College's retention and graduation rates of the low-income students.

Additional information on current credit hours and previous credit hours using current semester GPA and previous GPA could also be studied. Belcheir (2000) reported that continually enrolled students with a 2.0 or higher GPA were 2.5 times more likely to graduate than students with a low GPA and discontinuous enrollment. An intrusive academic advisor could use the current hours and previous credit hours GPA information for student retention and increasing graduation rates of the developmental students. Based on the Multiple Measure for Placement policy by the Center for Community College Student Engagement (2016), high school GPA, placement test scores of ACT or

SAT, and other placement test scores could also be studied. While most of this study used descriptive data to explore the differences, additional statistical analysis could be conducted to determine the degree to which these variables predict passing EG101 when enrolled in ALP.

Affective and personal factors influence student success (Boylan, 2009). More research is needed to isolate these affective and personal factors of both the P101 and the NP101 groups. This research could be done through qualitative studies and surveys. A qualitative study by Nordman (2017) focused on several students who passed ALP EG101 showed success because of "guided course design, high engagement, and high support" (p. 85). While this ALP program is successful for many students, additional qualitative information is needed on the reasons that students do not pass.

Future studies could include all institutions in the state of Kansas offering developmental education in English. Similar research could be expanded to the over 280 institutions using the ALP model (Community College of Baltimore County, 2017a). These extended studies could include all the personal and academic characteristics as well as Pell Grant status, current and previous GPA, and placement test scores to determine differences in passing and non-passing students. The studies could use the same variables and compare the passing and non-passing students in ALP EG101 to the passing and non-passing students enrolled in EG101. More statistical analysis can be performed with the ALP institutions to predict the probability of students passing EG101.

More research is also needed on the reading remedial courses when combined with ALP. The ALP model changed at CCBC with Fall 2016 to integrate reading and writing into one developmental education course as the co-requisite with the English

composition course (Community College of Baltimore County, 2016). Currently, Butler Community College has the remedial reading course separated from the EG060 course. More research needs to be conducted to see which model is more successful for students.

Longitudinal studies should also be conducted on the students in P101 to determine if they continue to the next course of EG102, successfully pass EG102, and then continue on to graduate with a credential. These studies should be at the institution as well as state and ALP schools. In addition, research studies could examine the number of NP101 students re-taking EG101 as well as the number of students dropping out of EG101. Since EG101 is a gatekeeper course to all credentials, following these NP101 students will help institutions retain and graduate these students. Bailey et al. (2015) stated, "in one study of community college dropouts, CCRC researchers found these students had indeed performed poorly in college-level math and English…but they performed even worse in other key introductory courses" (p. 129). By following the NP101 students in other courses, institutions may be able to concentrate on these students and implement intrusive academic advising for them and meet the goal of students earning a credential and not dropping out of college.

Concluding remarks. Butler Community College changed its developmental English program to ALP and then changed to full-scale implementation to increase the success rates of students in the gatekeeper English Composition I course. Using data from the first academic year of the implementation, this study explored the characteristics of the passing and non-passing students in EG101. Descriptive data showed males, Blacks, and students out of state did not pass at higher rates. The age of the students did not make a difference in passing or not passing. Non-passing students had fewer

previous credit hours and fewer current credit hours. The descriptive data showed the students with the declared degree of Associate in Science had higher non-passing rates but enrollment in a remedial reading course did not make any difference between passing and non-passing students.

The completion of this study relates to the mission of the institution, "Butler Community College exists to develop responsible, involved lifelong learners and to contribute to the vitality of the communities it serves," and vision, "Butler will be the Learning College of Choice for the Region, engaging students and other stakeholders in exceptional instructional programs and services that directly relate to their needs and prepare them for success" (Butler Community College, 2018a). The results of this study can improve the lives of students through additional changes in assessment and placement, curriculum, and the instructional program of ALP. The expansion of knowledge can help other institutions increase the effectiveness and success of developmental education in English.

References

Adams, P. (2014, June). *Non-cognitive issues*. Paper session presented at the meeting of Conference on Acceleration in Developmental Education, Baltimore, MD.

Adams, P. (2017, June). *ALP start-up*. Paper session presented at the meeting of Conference on Acceleration in Developmental Education, Denver, CO.

Adams, P., Gearhart, S., Miller, R., & Roberts, A. (2009). The Accelerated Learning Program: Throwing open the gates. *Journal of Basic Writing, 28*(2), 50-69.

Adelman, C. (2005). *Moving into town—and moving on: The community college in the lives of traditional-age students*. Washington, DC: U.S. Department of Education.

Alliance for Excellent Education (2010). Reinventing the federal role in education: Supporting the goal of college and career readiness for all students. *Education Digest, 75*(6), 34-43.

Alvarez, A. L. (2008). *Academic performance: A correlational study between a remedial writing course and college English I grades*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3326213)

American Association of Community Colleges. (2017). 2016 community college fast facts. In P. Sullivan & C. Toth (Eds.), *Teaching composition at the two-year college* (pp. 9-10). Boston, MA: Bedford/St. Martin's.

Arendale, D. R. (2014). History of learning assistance in U.S. postsecondary education. In H. R. Boylan & B. S. Bonham (Eds.), *Developmental education: Readings on its past, present, and future* (pp. 28-58). Boston, MA: Bedford/St. Martin's.

Arum, R., & Roksa, J. (2011). *Academically adrift*. Chicago, IL: The University of Chicago Press.

Attewell, P. A., Lavin, D. E., Domina, T., & Levey, T. (2006). New evidence on college remediation. *Journal of Higher Education, 77*(5), 886-924.

Bailey, T. (2009). Challenge and opportunity: Rethinking the role and function of developmental education in community college. *New Directions for Community Colleges, 2009*(145), 11-30. doi:10.1002/cc.352

Bailey, T., & Jaggars, S. S. (2016). *When college students start behind*. Washington, DC: The Century Foundation.

Bailey, T., Jaggars, S. S., & Jenkins, D. (2015). *Redesigning America's community colleges: A clearer path to student success*. Cambridge, MA: Harvard University Press.

Barnett, E. A., Bork, R. H., Mayer, A. K., Pretlow, J., Wathington, H. D., & Weiss, M. J. (2014). Bridging the gap: An impact study of eight developmental summer bridge programs in Texas. In H. R. Boylan & B. S. Bonham (Eds.), *Developmental education: Readings on its past, present, and future* (pp. 18-27). Boston, MA: Bedford/St. Martin's.

Barton, M. A. (1983). *A study of the effectiveness of selected aspects of the developmental education program at an urban multicampus community college*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 8404345)

Baum, S., Kurose, C., & McPherson, M. (2013). An overview of American higher education. *Future of Children, 23*(1), 17-39.

Belcheir, M. J. (2000). *Predicting the probability of graduating after four, six, and ten years*. (Research Report BSU-RR-2000-01). Pine Bluff, AR: Good Faith Fund.

Belfield, C. R., & Crosta, P. M. (2012). *Predicting success in college: The importance of placement tests and high school transcripts*. [CCRC Working Paper No. 42]. New York, NY: Columbia University, Teachers College, Community College Research Center.

Bettinger, E. P., Boatman, A., & Long, B. T. (2013, March 01). Student supports: Developmental education and other academic programs. *The Future of Children, 23*(1), 93-115.

Boroch, D., Hope, L., Smith, B., Gabriner, R., Mery, P., Johnstone, R., & Asera, R. (2010). *Student success in community colleges*. San Francisco, CA: John Wiley & Sons, Inc.

Boylan, H. R. (2009). Targeted Intervention for Developmental Education Students (T.I.D.E.S.). *Journal of Developmental Education, 32*(3), 14-18.

Boylan, H. R., & Bonham, B. S. (2014). *Developmental education: Readings on its past, present, and future*. Boston, MA: Bedford/St. Martin's.

Boylan, H. R., Calderwood, B. J., Levine-Brown, P., & Anthony, S. W. (2017). 40th anniversary research timeline. *Journal of Developmental Education, 40*(3), 2-7.

Boylan, H. R., & White, W. G., Jr. (2014). Educating all the nation's people: The historical roots of developmental education. In H. R. Boylan & B. S. Bonham (Eds.), *Developmental education: Readings on its past, present, and future* (pp. 5-10). Boston, MA: Bedford/St. Martin's.

Bragg, D. D., Baker, E. D., & Puryear, M. (2010, December). *2010 follow-up of Community College of Denver FastStart program*. Champaign, IL: University of Illinois, Office of Community College Research and Leadership.

Brier, E. (2014). Bridging the academic preparation gap: An historical view. In H. R. Boylan & B. S. Bonham (Eds.), *Developmental education: Readings on its past, present, and future* (pp. 11-18). Boston, MA: Bedford/St. Martin's.

Bromberg, M., & Theokas, C. (2016, April). *Meandering toward graduation: Transcript outcomes of high school graduates*. Washington, DC: The Education Trust.

Buchhorn, W. (2015). *Course outline: English composition I*. Retrieved from Butler Community College website: http://documents.butlercc.edu/outline/HSS/EG_ English/EG101outline201580_TB011717.pdf

Buchhorn, W. (2016). *Course outline: Fundamentals of English*. Retrieved from Butler Community College website: http://documents.butlercc.edu/outline/HSS/EG_ English/EG060outline201680_TB081016.pdf

Butler Community College. (2017). *English placement guidelines 2017*. Retrieved from https://www.butlercc.edu/downloads/file/847/english-placement-guidelines-2017

Butler Community College. (2018a). *Mission & vision*. Retrieved from https://www.butlercc.edu/info/20005/about/362/mission-and-vision

Butler Community College. (2018b). *Placement testing*. Retrieved from https://www.butlercc.edu/info/200985/testing-center/22/placement-testing

Cafarella, B. V. (2014). Developmental education: Then and now. *Research in Developmental Education, (25)*4, 1-6.

Center for Community College Student Engagement. (2014). *A matter of degrees: Practice to pathways*. Austin: TX: The University of Texas at Austin, College of Education, Department of Educational Administration, Program in Higher Education Leadership.

Center for Community College Student Engagement. (2016). *Expectations meet reality: The underprepared student and community colleges*. Austin: TX: The University of Texas at Austin, College of Education, Department of Educational Administration, Program in Higher Education Leadership.

Cho, S., Kopko, E., Jenkins, D., & Jaggars, S. S. (2012). *New evidence of success for community college remedial English students: Tracking the outcomes of students in the Accelerated Learning Program (ALP)*. [CCRC Working Paper No. 53]. New York, NY: Columbia University, Teachers College, Community College Research Center.

Coleman, D. (2014). *Replicating the Accelerated Learning Program: Preliminary but promising findings*. Charlotte, NC: The Center for Applied Research.

Coleman, D. (2015). *Replicating the Accelerated Learning Program: Updated findings*. Charlotte, NC: The Center for Applied Research.

Community College of Baltimore County. (2011). *Accelerated Learning Program: Faculty handbook*. Baltimore, MD: Community College of Baltimore County.

Community College of Baltimore County. (2016). *Important change in the ALP model*. Retrieved from http://alp-deved.org/2016/08/important-change-in-the-alp-model/#more-4359

Community College of Baltimore County. (2017a). *ALP schools*. Retrieved from http://alp-deved.org/alp-schools-directory/

Community College of Baltimore County. (2017b). *What is ALP?* Retrieved from http://alp-deved.org/what-is-alp-exactly/

Community College of Baltimore County. (2017c). *What results has ALP produced?* Retrieved from http://alp-deved.org/what-results-has-alp-produced/

Denley, T. (2016). *Co-requisite remediation full implementation 2015-2016* (Tennessee Board of Regents Technical Brief No. 3). Retrieved from Tennessee Board of Regents, Office of the Vice Chancellor for Academic Affairs website: https://www.tbr.edu/sites/tbr.edu/files/media/2016/12/TBR%20CoRequisite%20Study%20-%20Full%20Implementation%202015-2016.pdf

Donaldson, P., McKinney, L., Lee, M., & Pino, D. (2016). First-year community college students' perceptions of and attitudes toward intrusive academic advising. *NACADA Journal, 36*(1), 30-42.

Dotzler, J. J., Jr. (2003). A note on the nature and history of post-secondary developmental education in America. *Mathematics and Computer Education, 37*(1), 121-125.

Edgecombe, N. (2011). *Accelerating the academic achievement of students referred to developmental education*. [CCRC Brief. Number 55]. New York, NY: Columbia University, Teachers College, Community College Research Center.

Ewell, P. T. (2016). The federal definition of the credit hour: A potential lever for change? *Assessment Update, 28*(4), 10-11. doi:10.1002/au.30066

Geiger, R. L. (2016). The ten generations of American higher education. In M. N. Bastedo, P.G. Altbach, & P.J. Gumport (Eds.), *American higher education in the twenty-first century: Social, political, and economic challenges* (pp. 3-34). Baltimore, MD: John Hopkins University Press.

Gilbert, C. K., & Heller, D. E. (2013). Access, equity, and community colleges: The Truman commission and federal higher education policy from 1947 to 2011. *Journal of Higher Education, 84*(3), 417-443.

Goudas, A. M., & Boylan, H. R. (2012, September 12). Addressing flawed research in developmental education. *Journal of Developmental Education, 36*(1), 2-4.

Goudas, A. M., & Boylan, H. R. (2013). A brief response to Bailey, Jaggars, and Scott-Clayton. *Journal of Developmental Education, 36*(3), 28-30.

Handel, S. J., & Williams, R. A. (2011, March 01). Reimagining remediation. *Change: The Magazine of Higher Learning, 43*(2), 28-33.

Henson, L., Hern, K., & Snell, M. (2017). *Up to the challenge: Community colleges expand access to college-level courses*. Sacramento, CA: The California Acceleration Project.

Hern, K. (2012). Acceleration across California: Shorter pathways in developmental English and math. *Change: The Magazine of Higher Learning, 44*(3), 60-68.

Hern, K., & Snell, M. (2013). *High challenge, high support classrooms for underprepared students: Toward a vision of accelerated curriculum & pedagogy*. Oakland, CA: LearningWorks.

Hern, K., & Snell, M. (2014). The California Acceleration Project: Reforming developmental education to increase student completion of college-level math and English. *New Directions for Community Colleges, 2014*(167), 27-39. doi:10.1002/cc.20108

Hodara, M. (2015). *What predicts participation in developmental education among recent high school graduates at community college? Lessons from Oregon (REL*

2015–081). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northwest.

Hodara, M., & Cox, M. (2016). *Developmental education and college readiness at the University of Alaska. REL 2016-123*. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northwest.

Hodara, M., & Jaggars, S. S. (2014). An examination of the impact of accelerating community college students' progression through developmental education. *The Journal of Higher Education, 85*(2), 246-276.

Holzer, H. J. & Baum, S. (2017). *Making college work: Pathways to success for disadvantaged students*. Washington, DC: Brookings Institution Press.

Honer, V. (2015a). *Course outline: Basic reading and vocabulary skills*. Retrieved from Butler Community College website: http://documents.butlercc.edu/outline/ HSS/RD_ Reading/RD011outline201580.pdf

Honer, V. (2015b). *Course outline: Reading fundamentals*. Retrieved from Butler Community College website: http://documents.butlercc.edu/outline/HSS/RD _Reading/RD012outline201580_TB060617.pdf

Jaggars, S. S., Edgecombe, N., & Stacey, G. W. (2014). *What we know about accelerated developmental education*. New York, NY: Columbia University, Teachers College, Community College Research Center.

Jaggars, S. S., Hodara, M., & Stacey, G. W. (2013, February). *Designing meaningful developmental reform*. New York, NY: Columbia University, Teachers College, Community College Research Center.

Jaggars, S. S., & Stacey, G. W. (2014, January). *What we know about developmental education outcomes*. New York, NY: Columbia University, Teachers College, Community College Research Center.

Jenkins, D., & Cho, S. (2012). *Get with the program: Accelerating community college students' entry into and completion of programs of study*. [CCRC Working Paper No. 32]. New York, NY: Columbia University, Teachers College, Community College Research Center.

Jenkins, D., Speroni, C., Belfield, C., Jaggars, S. S., & Edgecombe, N. (2010). *A model for accelerating academic success of community college remedial English students: Is the Accelerated Learning Program (ALP) effective and affordable?* [CCRC Working Paper No. 21 (Rep.)]. New York, NY: Columbia University, Teachers College, Community College Research Center.

Kansas Board of Regents. (2014, June). *Developmental education working group report*. Retrieved from https://www.kansasregents.org/resources/PDF/3100-REPORT_DevelopmentalEducationWorkingGroup_June2014.pdf

Kansas Board of Regents. (2017a). *Board policy manual: Coordination of institutions*. Retrieved from https://www.kansasregents.org/about/policies-by-laws-missions/board_policy_manual_2/chapter_iii_coordination_of_institutions_2/chapter_iii_full_text

Kansas Board of Regents. (2017b). *Developmental education*. Retrieved from https://www.kansasregents.org/resources/PDF/KBOR_DevEdReport-allstudents_April2017.pdf

Kansas Board of Regents. (2017c). *Foresight 2020: A 10-year strategic agenda for the state's public higher education system*. Retrieved from https://www.kansasregents.org/resources/PDF/Foresight2020/Foresight_2020_Overview__January_2017.pdf

Kansas Board of Regents. (2017d). *KRSN ENG1010 – English Composition I*. [Transfer & Articulation]. Retrieved from https://www.kansasregents.org/resources/PDF/Academic_Affairs/TAAC/FY_2015/English_Composition_I_12-2017.pdf

Kansas Center for Economic Growth. (2013). *The cost of admission: Higher education in Kansas*. Retrieved from https://realprosperityks.com/wp-content/uploads/2013/02/Higher-ed-report-FINAL.pdf

Kempson, L., Bako, T., Lewin, G. (2014). *What will they learn? 2012-13. A survey of core requirements at our nation's colleges and universities*. Washington, DC: American Council of Trustees and Alumni.

Lunenburg, F. C., & Irby, B. J. (2008). *Writing a successful thesis or dissertation*. Thousand Oaks, CA: Corwin Press.

McCoskey, K., McCaffree, A., Templin, N., & Teubner, C. (2015, June). *ALP at Butler Community College*. Poster session presented at the meeting of Conference on Acceleration in Developmental Education, Costa Mesa, CA.

Merisotis, J. P., & Phipps, R. A. (2014). Remedial education in colleges and universities: What's really going on? In H. R. Boylan & B. S. Bonham (Eds.), *Developmental*

education: Readings on its past, present, and future (pp. 18-27). Boston, MA: Bedford/St. Martin's.

National Center for Education Statistics. (2017). *College navigator: Butler Community College*. Retrieved from https://nces.ed.gov/collegenavigator/ ?q= butler +community+college&s=KS&id=154800

Nichols, A. H. (2015). *The Pell partnership: Ensuring a shared responsibility for low-income student success*. Washington, DC: The Education Trust.

Noble, J., & Sawyer, R. (2013). A study of the effectiveness of developmental courses for improving success in college. *ACT Research Report Series, 2013*(1).

Nordman, T. D. (2017). *The road taken that has made all the difference: A narrative inquiry of student engagement and success in Butler Community College's Accelerated Learning Program in English*. (Doctoral dissertation). Retrieved from https://digitalcommons.unl.edu/dissertations/AAI10682122/

Pedersen, R. (2001). How we got here: It's not how you think. *Community College Week, 13*(15), 4.

Pitter, G. W., LeMon, R. E., & Lanham, C. H. (1996). *Hours to graduation: A national survey of credit hours required for baccalaureate degrees*. Tallahassee, FL: Office of Academic Programs, State University System of Florida.

Pittman, K. M. (2014). *Predicting student academic success in a developmental English community college course.* (Doctoral dissertation). Retrieved from http://rave.ohiolink.edu/etdc/view?acc_num=ohiou1387492861

Pivik, B. (2016, March 15). *ACT phases out Compass placement test*. Retrieved from https://www.petersons.com/articles/act/act-phases-out-compass

President's Commission on Higher Education. (2017). Higher education for democracy. In P. M. Sullivan & C. Toth (Eds.), *Teaching composition at the two-year college: Background readings* (pp. 7-8). Boston, MA: Bedford/St. Martin's.

Rutschow, E. Z., & Schneider, E. (2014). Unlocking the gate: What we know about improving developmental education. In H. R. Boylan & B. S. Bonham (Eds.), *Developmental education: Readings on its past, present, and future* (pp. 189-249). Boston, MA: Bedford/St. Martin's.

Schudde, L. & Scott-Clayton, J. (2016). Pell Grants as performance-based scholarships? An examination of satisfactory academic progress requirements in the nation's largest need-based aid program. *Research in Higher Education, 57*(8), 943-967.

Scott-Clayton, J. (2012). *Do high-stakes placement exams predict college success?* [CCRC Working Paper No. 41]. New York, NY: Columbia University, Teachers College, Community College Research Center.

Scott-Clayton, J., & Stacey, G. W. (2015). *Improving the accuracy of remedial placement*. New York, NY: Columbia University, Teachers College, Community College Research Center.

Seraphin, C. (2013). General education requirements what's the point? *Collegexpress Magazine,* 20-21.

Sheldon, C. Q., & Durdella, N. R. (2014). Success rates for students taking compressed and regular-length developmental courses in the community college. In H. R. Boylan & B. S. Bonham (Eds.), *Developmental education: Readings on its past, present, and future* (pp. 339-353). Boston, MA: Bedford/St. Martin's.

Tanner, D. (2012). *Using statistics to make educational decisions*. Thousand Oaks, CA: SAGE Publications, Inc.

Tierney, W. G. & Duncheon, J. C. (2013, November 8). Wrong answer on remediation. *Inside Higher Ed*. Retrieved from https://www.insidehighered.com/views /2013/11/08/ending-remediation-wrong-answer-essay

U.S. Department of Education. (2010, March). *A blueprint for reform: The reauthorization of the elementary and secondary education act*. Washington, DC: Education Publications Center.

Vanderburgh, W. (2017, April 27). How to get a job after college, and why your major might not matter [Web log post]. Retrieved from https://www.linkedin.com/ pulse/how-get-job-after-college-why-your-major-might-matter-vanderburgh/

White, W. G., Martirosyan, N., & Wanjohi, R. (2014). Preparatory programs in nineteenth century Midwest land grant colleges (part I). In H. R. Boylan & B. S. Bonham (Eds.), *Developmental education: Readings on its past, present, and future* (pp. 18-27). Boston, MA: Bedford/St. Martin's.

Wood, L. J. (2017, June). *Creating conditions that foster engagement for college men of color*. Paper session presented at the meeting of Conference on Acceleration in Developmental Education, Denver, CO.

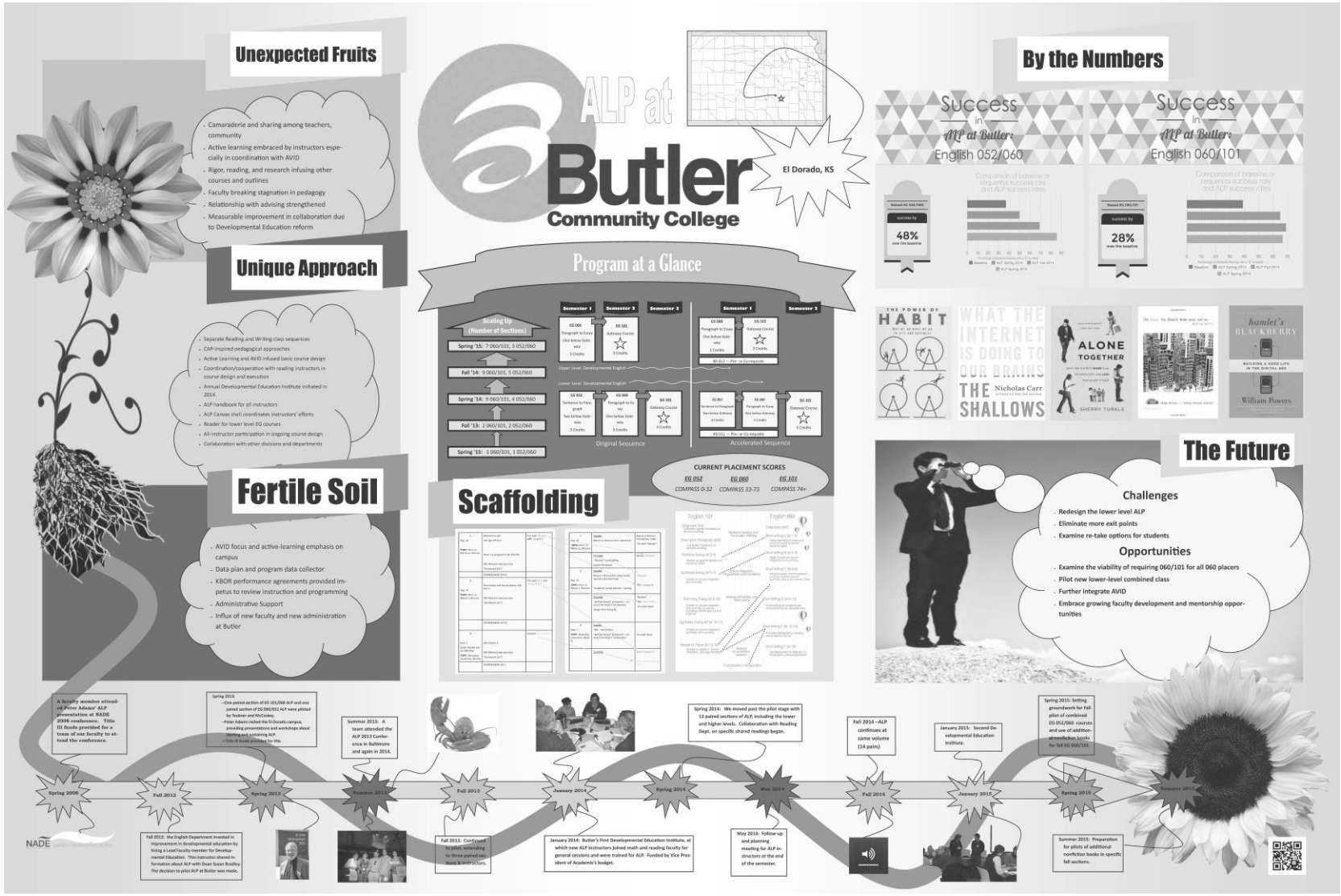
Zhu, L. (2004). *Exploring the determinants of time-to-degree in public 4-year colleges*. Brockport, NY: SUNY College at Brockport.

Appendices

Appendix A: Permission to Identify Butler Community College in the Study

On August 10, 2015, Dr. Karla Fisher, Vice President of Academic Affairs at Butler Community College at the time of this writing, granted permission in personal communication for use of the institution name of Butler Community College in this dissertation.

Appendix B: ALP at Butler Community College


Unexpected Fruits
Camaraderie and sharing among teachers, community
Active learning embraced by instructors especially in coordination with AVID
Rigor, reading, and research infusing other courses and outlines
Faculty breaking stagnation in pedagogy
Relationship with advising strengthened
Measurable improvement in collaboration due to Developmental Education reform
Unique Approach
Separate Reading and Writing class sequences
CAP-inspired pedagogical approaches
Active Learning and AVID infused basic course design
Coordination/cooperation with reading instructors in course design and execution
Annual Developmental Education Institute initiated in 2014
ALP handbook for all instructors
ALP Canvas shell coordinates instructors' efforts
Reader for lower level EG courses
All-instructor participation in ongoing course design
Collaboration with other divisions and departments
Fertile Soil
AVID focus and active-learning emphasis on campus
Data plan and program data collector
KBOR performance agreements provided impetus to review instruction and programming
Administrative Support
Influx of new faculty and new administration at Butler
ALP at Butler Community College
El Dorado, KS
Program at a Glance
Scaling up (Number of Sections)
Spring '15: 7 060/101, 3 052/060
Fall '14: 9 060/101, 5 052/060
Spring '14: 9 060/101, 4 052/060
Fall '13: 2 060/101, 2 052/060
Spring '13: 1 060/101, 1 052/060
Semester 1
Semester 2
Semester 3
Original Sequence
Accelerated Sequence
Scaffolding
CURRENT PLACEMENT SCORES
EG 052 COMPASS 0-32
EG 060 COMPASS 33-73
EG 101 COMPASS 74+
By the Numbers
Success in ALP at Butler: English 052/060
48%
Success in ALP at Butler: English 060/101
28%
THE POWER OF HABIT
WHAT THE INTERNET IS DOING TO OUR BRAINS THE SHALLOWS Nicholas Carr
ALONE TOGETHER SHERRY TURKLE
hamlet's BLACKBERRY
William Powers
The Future
Challenges
Redesign the lower level ALP
Eliminate more exit points
Examine re-take options for students
Opportunities
Examine the viability of requiring 060/101 for all 060 placers
Pilot new lower-level combined class
Further integrate AVID
Embrace growing faculty development and mentorship opportunities
Spring 2008
Fall 2012
Spring 2013
Summer 2013
Fall 2013
January 2014
Spring 2014
May 2014
Fall 2014
January 2015
Spring 2015
Summer 2015
Fall 2012: the English Department invested in improvement in developmental education by hiring a Lead Faculty member for Developmental Education. This instructor shared information about ALP with Dean Susan Bradley. The decision to pilot ALP at Butler was made.
Spring 2013: -One paired section of EG 101/060 ALP and one paired section of EG 060/052 ALP were piloted by Teubner and McCosley. -Peter Adams visited the El Dorado campus, providing presentations and workshops about starting and sustaining ALP. -TRIO II funds provided for this.
A faculty member attended Peter Adams' ALP presentation at NADE 2008 conference. Title III funds provided for a team of our faculty to attend the conference.
Summer 2013: A team attended the ALP 2013 Conference in Baltimore and again in 2014.
Fall 2013: Continued to pilot, extending to three paired sections & level II tutors.
January 2014: Butler's First Developmental Education Institute, at which new ALP instructors joined math and reading faculty for general sessions and were trained for ALP. Funded by Vice President of Academic's budget.
Spring 2014: We moved past the pilot stage with 13 paired sections of ALP, including the lower and higher levels. Collaboration with Reading Dept. on specific shared readings began.
May 2014: Follow-up and planning meeting for ALP instructors at the end of the semester.
Fall 2014 –ALP continues at same volume (14 pairs)
January 2015: Second Developmental Education Institute.
Spring 2015: Setting groundwork for Fall pilot of combined EG 052/060 courses and use of additional books for fall EG 060/101.
Summer 2015: Preparation for pilots of additional nonfiction books in specific fall sections.
NADE

Appendix C: Course Outline for EG060

Butler Community College
Humanities and Social Sciences Division

William James Buchhorn
Revised Spring 2016
Implemented Fall 2016
Textbook Update Fall 2016

COURSE OUTLINE
Fundamentals of English

Course Description
EG 060. Fundamentals of English. 3 hours credit. Prerequisite: A score at a pre-determined level on a placement instrument or RD 011 with a C or better. This course will enable the student to write paragraphs and essays that demonstrate grammatical, organizational and analytical competence for enrollment in English Composition I. The student will review and practice basic grammar and writing skills necessary for a college-level writing class as well as read, analyze, and synthesize college-level texts.

Required Materials*
EG 060 level of the Accelerated Learning Program (ALP):
Howard, Rebecca Moore. *Writing Matters*. New York: McGraw-Hill.

Duhigg, Charles. *The Power of Habit: Why We Do What We Do in Life and Business*. New York: Random House.

EG 060 in the EG 060/101 level of ALP:
Howard, Rebecca Moore. *Writing Matters*. New York: McGraw-Hill.

Conventional EG 060 outside of ALP:
Langan, John. *Exploring Writing: Paragraphs to Essays*. New York: McGraw Hill.

Butler Community College. *EG 060 Reader.* (All non-ALP and ALP).

*Varies by class section, in or out of the Accelerated Learning Program as designated. Note that conventional lecture and online EG 060 sections are all outside of ALP with the exception of small complementary lecture sections that meet at the same time on the same days as ALP sections. For complete material(s) information, refer to https://bookstore.butlercc.edu

Online Materials
Tyner, T., *Writing from life*. Clovis, CA: Breadan Publishing.

Butler-assessed Outcomes
The intention is for the student to be able to
1. Develop and write unified, organized, supported paragraphs and essays that utilize a variety of rhetorical patterns.
2. Develop, organize, and write at least one essay that is a minimum of 500 words in length.
3. Demonstrate correct English grammar, structure, and style.

4. Read, discuss, and analyze college-level texts to explore ideas and content in writing and discussion.

Learning PACT Skills that will be developed and documented in this course
Through involvement in this course, the student will develop ability in the following PACT skill area(s):
Analytical Thinking Skills
Critical thinking
- Through written assignments, reading, and class participation activities, the student will demonstrate analytical and argumentative skills.

Critical literacy
- Through supported engagement with various types of college-level texts (such as essays, videos, charts, and images), the student will demonstrate strategies for building meaning, synthesizing ideas with prior learning, and applying ideas to class writings and discussions.

Communication Skills
Creation and delivery of messages
- Through use of the steps of the writing process, the student will write paragraphs utilizing a variety of rhetorical patterns.
- Through use of the steps of the writing process, the student will write at least one essay incorporating one or more rhetorical pattern(s).

Reception and interpretation of messages
- Through listening, reading, and observation, the student will analyze the structure, style, and content of college-level texts.
- Through collaborating with other students, the student will discuss texts to build meaning.
- Through summarizing and paraphrase main ideas, the student will interpret main ideas encountered in texts.

Technology Skills
Discipline-specific technology
- Through the use of technology including word processing, the student will develop and write various texts.

Major Summative Assessment Task(s)
These Butler-assessed Outcome(s) and the Learning PACT skill(s) will be demonstrated in the final unit of the course by
1. Using the steps of the writing process to write a unified, organized, and supported Common Essay of 500 words (C,T, A skills) which responds to a prompt (A skill) based on ideas and content considered during course work (A and C skills) and involves summary and analysis of texts (A and C skills).

Skills or Competencies
These actions are essential to achieve the course outcomes:
1. Develop and write unified, organized, and supported paragraphs including topic sentences, supporting details, and conclusions.
2. Develop thesis statements that can be supported by evidence.

3. Develop and write one or more essays that exhibit use of correct English grammar, structure, and style.
4. Demonstrate awareness of rhetorical situations by making appropriate choices.
5. Write clear and mechanically accurate sentences, demonstrating variance of sentence structures.
6. Use writing to analyze and summarize texts and develop original responses through synthesis and evaluation.
7. Use style guides to correctly acknowledge and cite source information.

Learning Units

I. Writing process
   A. Generate ideas through prewriting
   B. Compose/create a draft
   C. Revise
   D. Edit and format

II. Patterns of paragraph and essay development
   A. Narration
   B. Description
   C. Example/Exemplification
   D. Process
   E. Definition
   F. Comparison and contrast
   G. Cause and effect
   H. Division and classification
   I. Argument
   J. Summary

III. Sentence sense
   A. Understand sentence basics
      1. Subjects and predicates
      2. Sentence types
   B. Recognize sentence errors
      1. Fragments
      2. Run-ons
      3. Comma splices
   C. Understand coordination and subordination
   D. Make subject and verbs agree
   E. Use basic tenses for regular and irregular verbs
   F. Understand and utilize voice
      1. Passive and active voice
      2. Consistent voice

IV. Effective Use
   A. Nouns
   B. Pronouns

1. Basic
2. Case
3. Agreement

C. Adjectives and adverbs
D. Parallelism
E. Spelling
1. Use a dictionary
2. Increase vocabulary
F. Commas
G. Capitalization

V. Research skills
A. Use style guides and cite source information
B. Find sources using Butler's library databases and resources
C. Evaluate the quality of a source
D. Summarize and paraphrase texts; correctly acknowledge original sources
E. Accurately and effectively quote texts; correctly acknowledge original sources
F. Effectively integrate and synthesize information from sources into own writing and clearly avoid plagiarism

VI. Reading
A. Annotate texts
B. Identify claims
C. Identify and articulate main ideas in writing or discussion
D. Pre-read to evaluate sources and activate prior learning
E. Take notes and reflect post-reading
F. Discuss texts
G. Respond to reading by analyzing and synthesizing texts and ideas in writing

Learning Activities
Learning activities will be assigned to assist the student to achieve the intended learning outcomes through writing assignments and activities, reading, discussion, tests, quizzes, journaling, individual conferences, library research and other activities at the discretion of the instructor. These activities may either be face-to-face or online.

Grade Determination
The student will be graded on learning activities and assessment tasks. Grade determinants may include the following: daily work, quizzes, chapter or unit tests, comprehensive examinations, projects, presentations, class participation, and other methods of evaluation at the discretion of the instructor.

Appendix D: Course Outline for EG101

Butler Community College
Humanities and Social Sciences Division

William Buchhorn
Revised Spring 2015
Implemented Fall 2015
Textbook Update Spring 2017

COURSE OUTLINE
English Composition I

Course Description
EG 101. English Composition I. 3 hours credit. Prerequisite: A score at a pre-determined level on a placement instrument, or a C or better in EG 060 and RD 012, or a C or better in EG 060 and concurrent enrollment in RD 012. This course will enable the student to communicate effectively through a variety of writing activities. The student will develop knowledge, skills, and critical thinking ability with regard to writing and reading. The student will recognize the importance of the grammatical and rhetorical structures of language to clear and effective writing. The student will recognize the process of creating documents through regular writing assignments. The learning outcomes and competencies detailed in this outline meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as approved by the Kansas Board of Regents (Transfers as ENG1010).

Required Materials*
EG 101 in the EG 060/101 level of the Accelerated Learning Program (ALP):
Howard, Rebecca Moore. *Writing Matters*. New York: McGraw-Hill

Neulieb, Janice, et al., Butler Community College Department of English. *The Mercury Reader*. Boston: Pearson Custom Publishing.

A non-fiction book of the English Departments choice. Check with the Butler Bookstore for the appropriate title(s).

Conventional EG 101 outside of ALP:
Howard, Rebecca Moore. *Writing Matters*. New York: McGraw-Hill

*Varies by class section, in or out of the Accelerated Learning Program as designated. Note that conventional lecture and online EG 101 sections are all outside of ALP with the exception of the small complementary conventional sections that meet with ALP sections.

For complete textbook information, refer to https://bookstore.butlercc.edu

Butler-assessed Outcomes
The intention is for the student to be able to:
1. Develop, organize, and write a minimum of six error-free essays (each with a minimum of 500-750 words) which utilize a variety of rhetorical patterns.
2. Read, discuss, and analyze college-level texts for use as models and in

critical thinking.
3. Demonstrate appropriate English grammar and a collegiate-level writing style.

Learning PACT Skills that will be developed and documented in this course
Through involvement in this course, the student will develop ability in the following PACT skill area(s):
Analytical Thinking Skills
Critical thinking
- Through written assignments, reading, and class participation activities, the student will develop analytical and argumentative skills.

Communication Skills
Creation and delivery of messages.
- Through brainstorming, drafting, and revising skills and practice, the student will write essays based on a variety of rhetorical patterns.
- Through the reading of model paragraphs and essays, the student will become familiar with analyzing the structure, style, and content of a text.
- Through summarizing and paraphrasing main ideas, the student will interpret main ideas encountered in texts.

Technology Skills
Discipline-specific technology
- Through the use of technology, the student will develop various written texts.

Major Summative Assessment Task(s)
These Butler-assessed Learning Outcome(s) and Learning PACT skill(s) will be demonstrated by:
1. Developing, organizing, and writing a Common Essay assignment (C and T skills) which demonstrates an awareness of correct English grammar, structure, and collegiate-level writing style (A skill).

Skills or Competencies
These actions are essential to achieve the course outcomes:
1. Write clear and mechanically accurate sentences.
2. Vary sentence structure.
3. Punctuate within conventions.
4. Develop thesis and topic sentences.
5. Transition effectively.
6. Use of a variety of rhetorical strategies to develop coherent essays, consisting of an introduction, body with supporting details and images, and a conclusion.
7. Use effective language.
8. Edit and revise drafts as part of the writing process.
9. Format documents and texts within conventions.
10. Acknowledge and cite source information.

Learning Units
I. Understanding the process of writing
   A. Ensuring success in writing
   B. Generating ideas through prewriting

C. Composing/creating a draft
D. Refining and polishing the draft
E. Utilizing editing processes

II. Using patterns of essay development
A. Narration
B. Description
C. Example/Exemplification
D. Process
E. Definition
F. Comparison and contrast
G. Cause and effect
H. Division and classification
I. Argument

III. Styling paragraphs in the essay
A. Understanding paragraphs
1. Order
a. Emphatic
b. Chronological
c. Spatial
2. Transitions
3. Impression created
B. Understanding and utilizing voice
1. Passive and active voice
2. Consistency in voice

IV. Styling sentences
A. Understanding sentence basics
1. Sentence types
2. Subjects and predicates
B. Understanding sentence errors
1. Fragments
2. Run-ons
3. Comma splices
C. Understanding coordination and subordination
D. Making subjects and verbs agree
E. Using basic tenses for regular and irregular verbs
F. Creating parallelism
G. Using figurative language
1. Abstract and concrete language
2. Denotation and connotation

V. Keeping writing correct
A. Working effectively with nouns
B. Understanding pronouns

1. Basic
2. Case
3. Agreement

C. Using adjectives and adverbs
D. Presenting items in parallel form
E. Focusing on correct spelling
   1. Dictionary
   2. Vocabulary awareness
F. Using commas
G. Using other punctuation marks
H. Using capital letters

VI. Connecting with the essay
   A. Writing essays with various purposes and audiences
   B. Examining essay styles
   C. Reading essays for purpose, audience, content, and style

VII. Conducting research
   A. Defining and avoiding plagiarism
   B. Evaluating the quality of a source
   C. Citing and documenting sources
   D. Summarizing, paraphrasing, quoting, and effectively integrating secondary sources into student writing
   E. Using style guides
   F. Representing information from outside sources responsibly

Learning Activities
Learning activities will be assigned to assist the student to achieve the intended learning outcome(s) through lecture, instructor-led class discussion, guest speakers, group activities, drills/skill practice, and other activities at the discretion of the instructor.

Grade Determination
The student will be graded on learning activities and assessment tasks. Grade determinants may include the following: daily work, quizzes, chapter or unit tests, comprehensive examinations, projects, presentations, class participation, and other methods of evaluation at the discretion of the instructor.

Appendix E: Baker University IRB

BAKER UNIVERSITY

IRB Request

Date 1-9-2018

IRB Protocol Number _____
(IRB use only)

I. Research Investigator(s) (students must list faculty sponsor)

Department(s) Professional and Graduate Studies

	Name	Signature	
1.	Noreen Templin Dr. Marie Miller	Marie Miller Digitally signed by Marie Miller Date: 2018.01.22 09:04:09 -06'00'	Principal Investigator ☑ Check if faculty sponsor
2.			
3.	Dr. Li Chen-Bouck	Li Chen-Bouck 2018.01.17 14:20:30 -06'00'	☐ Check if faculty sponsor
4.			☐ Check if faculty sponsor

Principal investigator contact information

Phone [redacted]

Email [redacted]

Address [redacted]

Note: When submitting your finalized, signed form to the IRB, please ensure that you cc all investigators and faculty sponsors using their official Baker University (or respective organization's) email addresses.

Faculty sponsor contact information

Phone _____

Email [redacted]

Expected Category of Review: ☐ Exempt ☑ Expedited ☐ Full ☐ Renewal

II. Protocol Title

An Exploration of the Differences in Characteristics between Passing and Non-Passing Developmental English Students from a Community College in Kansas

III. Summary:

The following questions must be answered. Be specific about exactly what participants will experience and about the protections that have been included to safeguard participants from harm.

A. In a sentence or two, please describe the background and purpose of the research.

Butler Community College had students enrolled in the first complete academic year, Fall 2016 and Spring 2017, of full-scale implementation of the remedial English course (EG060) while mainstreamed into the college-level English Composition I course (EG101). The purpose of this quantitative study is to identify the differences in student characteristics between the students who successfully passed both courses (EG060 and EG101) and those who did not pass both courses.

B. Briefly describe each condition, manipulation, or archival data set to be included within the study.

The Office of Research and Institutional Effectiveness at Butler Community College retains all student data and is made available using Excel spreadsheets. The spreadsheets for all students enrolled in the English composition courses and reading courses for Fall 2016 and Spring 2017 semesters will have participant data of course, grade, age, gender, ethnicity, residency, current credit hours, previous credit hours, and degree declared. Each student record will be assigned a random number so no personal identifying characteristics will be used.

IV. Protocol Details

A. What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.

This study will only use archival data and all personal identifying information will be removed.

B. Will the subjects encounter the risk of psychological, social, physical, or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.

No, there will not be psychological, social, physical, or legal risk to any subjects as the subject data will be from archival data and all specific personal subject identifying information will be removed.

C. Will any stress to subjects be involved? If so, please describe.

No, there will not be any stress to subjects since this study will only use archival data and all personal identifying information will be removed.

D. Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.

No, the subjects will not be deceived or misled in any way since this study will only use archival data and all personal identifying information will be removed.

E. Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.

No, this study will only use archival data and all personal identifying information will be removed.

F. Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.

No, the subjects will not have any materials presented to them which might be considered offensive, threatening, or degrading as this study will only use archival data and all personal identifying information will be removed.

G. Approximately how much time will be demanded of each subject?

None as this study will only use archival data.

H. Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.

The subjects in this study are the students who enrolled in EG060 and EG101 during Fall 2016 and Spring 2017. This study will only use archival data and all personal identifying information will be removed.

I. What steps will be taken to insure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?

This study will only use archival data so no inducements will be offered for participation.

J. How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.

No written consent form will be given to the subjects prior to participating as this study will only use archival data.

K. Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.

No, this study will only use archival data and all personal identifying information will be removed.

L. Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher, or employer? If so, explain.

No, the subjects will not have any part of the study to be made part of their permanent record since the study will only use archival data and all personal identifying information will be removed.

M. What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with the data after the study is completed?

The data will be from the Office of Research and Institutional Effectiveness at Butler Community College and stored on a college-owned electronic drive accessible only to the principal investigator. The data will be stored through the completion of the study and then will be deleted after 2 years. Specific personal identifying information will be removed.

N. If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?

No, there are no risks to the subjects or society as the study uses archival data. The benefit to society is that the study of the characteristics of students not passing will enable community colleges to improve the program and find additional resources for additional support of those students to efficiently education the students needing developmental education and increase graduation rates.

O. Will any data from files or archival data be used? If so, please describe.

All data will be from the Office of Research and Institutional Effectiveness at Butler Community College. The student records of course, grade, age, gender, ethnicity, residency, current credit hours, previous credit hours, and degree declared from the Fall 2016 and Spring 2017 semesters will be used for students enrolled in the reading courses, EG060, and EG101. Specific personal identifying information will be removed as each student record will be assigned a random number.

Appendix F: Baker University Approval to Conduct Research

BAKER UNIVERSITY
Own Confidence

Baker University Institutional Review Board

January 24th, 2018

Dear Noreen Templin and Marie Miller,

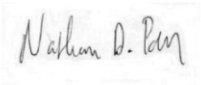
The Baker University IRB has reviewed your project application and approved this project under Expedited Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.

Please inform this Committee or myself when this project is terminated or completed. As noted above, you must also provide IRB with an annual status report and receive approval for maintaining your status. If you have any questions, please contact me at npoell@bakeru.edu or 785.594.4582.

Sincerely,



Nathan Poell, MA
Chair, Baker University IRB

Baker University IRB Committee
Scott Crenshaw
Jamin Perry, PhD
Susan Rogers, PhD
Joe Watson, PhD

Appendix G. Butler Community College Approval to Conduct Research

Office of Research and Institutional Effectiveness
215 BOE
(316) 322.3338

Butler Community College

To: Baker University Internal Review Board
From: Dr. Esam Sohail Mohammad, Associate Vice President, Institutional Research & Effectiveness
Re: Dissertation of Noreen Templin
Date: January 18, 2018

I have reviewed the dissertation proposal of Noreen Templin titled "An Exploration of the Differences in Characteristics between Passing and Non-Passing Developmental English Students from a Community College in Kansas". The study meets Butler Community College's requirements for responsible research and I approve the project.

Appendix H. Textbook Update in EG101

Butler Community College
Humanities and Social Sciences Division

William Buchhorn
Revised Spring 2015
Implemented Fall 2015
Textbook Update Spring 2017

COURSE OUTLINE
English Composition I

Course Description
EG 101. English Composition I. 3 hours credit. Prerequisite: A score at a pre-determined level on a placement instrument, or a C or better in EG 060 and RD 012, or a C or better in EG 060 and concurrent enrollment in RD 012. This course will enable the student to communicate effectively through a variety of writing activities. The student will develop knowledge, skills, and critical thinking ability with regard to writing and reading. The student will recognize the importance of the grammatical and rhetorical structures of language to clear and effective writing. The student will recognize the process of creating documents through regular writing assignments. The learning outcomes and competencies detailed in this outline meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as approved by the Kansas Board of Regents (Transfers as ENG1010).

Required Materials*
EG 101 in the EG 060/101 level of the Accelerated Learning Program (ALP):
Howard, Rebecca Moore. *Writing Matters*. New York: McGraw-Hill

Neulieb, Janice, et al., Butler Community College Department of English. *The Mercury Reader*. Boston: Pearson Custom Publishing.

A non-fiction book of the English Departments choice. Check with the Butler Bookstore for the appropriate title(s).

Conventional EG 101 outside of ALP:
Howard, Rebecca Moore. *Writing Matters*. New York: McGraw-Hill

*Varies by class section, in or out of the Accelerated Learning Program as designated. Note that conventional lecture and online EG 101 sections are all outside of ALP with the exception of the small complementary conventional sections that meet with ALP sections.

For complete textbook information, refer to https://bookstore.butlercc.edu