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Addressing Articulation and Common Language between 11th and 12th Grade 'English Language Arts and College-Level English in the California Community College

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ADDRESSING ARTICULATION AND COMMON LANGUAGE BETWEEN 11TH AND 12TH GRADE ENGLISH LANGUAGE ARTS AND COLLEGE-LEVEL ENGLISH IN THE CALIFORNIA COMMUNITY COLLEGE

A Dissertation

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

in

Educational Leadership

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by

Janet Andrews Long

March 2014

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Approved by:

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ABSTRACT

For several years, college-level remediation in English and mathematics has been of great concern for California Community Colleges and four-year colleges and universities. The cost of remediation has skyrocketed into the billions of dollars for postsecondary institutions. Placement tests are required for most students before they are permitted to enroll in any college course. These placement tests determine in what English and/or math class students will begin their college experience. At issue is that many students who successfully complete high English in the 11th & 12 grades (earn an A or B) are placing into a remedial English class. In 2012, the California Community College Chancellor's Office (CCCCO) reported that over 70% of new college students were required to take a remedial English and/or math class. The same is occurring in the California State University (CSU) system. In 2012, 18,690 (33%) CSU first-time freshmen system-wide needed remediation in English. Because of the high rate of remediation among California students in postsecondary institutions, questions have been raised concerning the disconnect between high school English and math and college-level English and math. A mixed-method study will address grades and other variables as predictors of English placement into a community college English course and common language between the Common Core State Standards and College-level English course content.

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Special thanks to Max Hill Jr. whose words of encouragement were never ending, and to my extended family that rooted for me from the very beginning!

DEDICATION

This dissertation is dedicated to three very important people:

To my father, Vernon Andrews Sr. for his sense of humor, his love and support; to my mother, Dr. Minnie F. Andrews Donald, also for her love and support. She has also been my rock, my mentor and recently reminded me that having a doctorate will not define me.

To my husband of 33 years, William Isaiah Long, III who stood by me through my bachelor's and master's degrees and now, my doctorate. Will, your support has meant the world to me. Thank you, Dear.

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CHAPTER ONE

INTRODUCTION

Background

In 1998, the California State University (CSU) system implemented its remediation policy requiring first-time freshmen students to take a placement examination after admission, but before enrollment unless they qualified for an exemption (Parker, 2007). Grubb et al. (1999) define remediation as "a class or activity intended to meet the needs of students who initially do not have the skills, experience, or orientation necessary to perform at a level that the institution or instructor recognizes as 'regular' or college-level instruction" (p. 174). Grubb et al. adds that institutions determine the skills necessary for college-level instruction with standardized tests. High school applicants to the CSU who placed below college-level on the English Placement Test (EPT) and Entry Level Mathematics exam (ELM) would then be required to take remedial English and/or math course(s). The CSU would further warn that this change in policy would be followed (eventually) with the elimination of the remedial English and math course offerings. This created much controversy in the state resulting in the delayed implementation of eliminating remediation. In the 2013-2014 academic year, the CSU continues to admit first-time freshmen who score below college-level in English and math.

In past years, low-income and educationally disadvantaged CSU first-time freshmen who placed into a remedial English and/or math course(s) were often accepted into the Summer Bridge Program through the university's Educational Opportunity Program (EOP). As a condition of enrollment these students were required to successfully complete the remedial English and/or math course(s) during the Summer Bridge Program. Now due to budget constraints, less than one-third of CSUs offer remedial courses for elective credit during Summer Bridge Programs. Consequently, those first-time freshmen who do not attend a Summer Bridge Program that offers remedial English and math are required to start remediation in the first semester/quarter and successfully complete remedial English, and/or math course(s) in the first year of college. If unsuccessful, the university typically requires students to complete all lower division requirements at a community college and students are encouraged to reapply for admission at the CSU or University of California (UC).

The California Community College (CCC) system has a similar problem. The CCC Student Success Task Force (SSTF) (2012) reported that the majority of its students -- 70% to 90% place into remedial and basic skills English and math courses. Through its Basic Skills Initiative started in 2006, the CCC Chancellor's Office (CCCCO) has allocated a minimum of $100,000 per year to each college for the purpose of developing instructional programs to combat the problem of underprepared students (CCC BSI, 2009).

Remediation

Of great concern for postsecondary educational institutions is the growing need and cost of remediation. The *Press Enterprise* (May 29, 2012) referred to [remedial] college classes as "costly" and "drawn out" (p. A1). They reported that Complete College America (CCA), a Washington-based national nonprofit organization, is working to increase the number of students who earn a college degree. Referring to remediation as "the Bridge to Nowhere" the CCA argues in its report that remediation classes are largely failing the nation's higher education system. Moreover, they report that while the intentions were noble "Nearly 4 in 10 remedial students in community colleges never complete their remedial courses" (CCA, 2012). As reported by the *Press Enterprise*, this comes at a time when the cost of tuition has grown at a rate of 8% (p. A6).

Parker (2007) found that some opponents of remediation find students are overwhelmingly, academically deficient and colleges and universities do not offer enough resources to prepare students for college-level courses. According to Parker, recent research suggested that low graduation rates were linked to a lack of preparation at the secondary school level. Parker further suggested that there was a misalignment between the academic expectation of high school graduates and those of college freshmen. Parker asserted, "until greater alignment of academic requirements occurs, remedial instruction can help underprepared students gain access to higher education" (p. 2).

Kirst and Venezia (2001) found that the lack of coordination between the public K-12 and postsecondary sectors impedes successful transitions between systems and diminishes educational opportunity for many students. Problems related to this misalignment or "disconnect" are many and include placement into remedial-level coursework.

The literature suggests that there is a strong disconnect between high school and postsecondary education. Venezia, Kirst and Antonio (2003) argued inadequate preparation for college, high levels of remediation, and low rates of college completion are causes for the disconnect between K-12 and postsecondary education. Kirst and Venezia (2001) found that little effort had been made "to coordinate reform systematically across educational levels in order to improve academic opportunities and the chances of success through students' entire educational lives" (p. 92). In fact, this disconnect is deeply rooted in the educational policy of the U.S. Venezia and Kirst reported that historically, the K-12 and postsecondary systems of education rarely collaborated to establish standards that were consistent. Their research found that in 1900, the two education systems were linked somewhat because the College Board set uniform standards for each academic subject and issued a syllabus to help students prepare for subject examinations. This connection was weak and eventually severed. The remaining linkage of significance is typically through teacher preparation programs in schools of education (p. 93).

Another reason for the "great divide between secondary schools and postsecondary education" as referred to by Kirst and Venezia (2003) is the lack of K-16 accountability systems or funding sectors to encourage higher education to change its practices (p. 93). Additionally, there are few incentives for colleges and universities to collaborate with school districts and schools.

Unless they are exempted, all first-time freshmen accepted into a four-year college or university are required to take a placement test. The same is true for all students who plan to attend a community college. These placement tests are designed to evaluate students' readiness for placement into a college-level course. Placement tests may require students to write extensively, an exercise not often required while in high school. Content covered in the placement exams may not be covered in high school curriculum, causing major barriers for students. Particularly affected are low-income and under-represented students who are likely to have attended schools that did not prepare students well for success in college.

Boswell (2000) elaborated further on the bureaucracy of the K-12 and postsecondary educational systems. Evidence was found that the significant disconnect between high schools and colleges were exemplified in the many contrasting institutional policies and practices. Most notably were the differences between high school graduation standards and college admission requirements, an issue of great concern among policy makers. During high school, students are required to take state assessment tests that reflect the skills students were

expected to have acquired between middle school and the 10th grade in high school. These tests are not used to determine college admission. Students have the opportunity to take one or more tests that are used for college admission such as the American College Test (ACT) or the Scholastic Aptitude Test (SAT). The ACT and SAT often cover material not included on high school assessments.

As asserted by Kirst and Venezia (2004), it is postsecondary institutions that have been responsible for defining college-level course work standards and remedial courses. They also state that, "K-12 entities at the local or state level define the curricula for non-AP college prep courses in high schools" (p. 15). These result in inconsistencies between postsecondary standards and high school curriculum. Additionally, because of their differing views, little dialogue exists between high school teachers and college instructors, resulting in students getting mixed signals about what they need to be college ready.

According to Bueschel (2003), "Remediation and the lack of preparation of students coming out of high school calls attention to the lack of alignment between the systems regarding the standard for college-level work" (p. 8). Bueschel found in her study that even though not all students have to go or do go to college, a majority of students express their desire to go and that nearly 70% will enroll into a postsecondary institution within a few years of leaving high school. The level of preparedness among community college students was of central importance in Bueschel's 2003 study and the lack of alignment between

K-12 and postsecondary education was perhaps the greatest challenge for those engaged in determining where the gaps can be found.

According to Bueschel (2003) the level of academic preparedness for college has additional implications. Level of maturity can be a large factor to being a successful first-year college student. Conley (2007a) notes that college is the first setting where "young people are expected to act as adults and not large children" (p. 6). These students must now discard or modify what they learned in their first 13 years of school. The expectations of how students engage inside and outside the college classroom, how they work independently, their motivation for being in college, and their intellectual development should change dramatically from their high school experience.

Conley (2007a) stated that "college is different from high school and college-readiness is fundamentally different than high school competence" (p. 6). For example, students may think that because a college course may have the same name as a class taken in high school, it contains the same academic rigor; these students would be sorely mistaken. The pace of the course may also be taught more rapidly than the high school course. Additionally, college courses most often require that students read eight to 10 books per semester/quarter as opposed to only one or two that may have been required in their high school course. Conley warned that writing multiple papers in short periods of time are expected of college students. These papers are expected to be well-reasoned, organized, and to contain citations with credible sources. Students who are not

college ready often write one or two research papers (at most) in high school, taking weeks or months to complete them. College papers must also be well developed, a requirement if students are to be successful in their courses.

Conley (2007a) stated that another measure of college readiness is the amount of time students spend preparing for their classes. Results found consistent reporting in the 2006 annual report by the National Survey of Student Engagement (NSSE) among college faculty that freshmen students should spend nearly twice as much time preparing for a class than the time actually spent in class (p. 7). McCormick (2011) found according to NSSE reports from 2000-2010 that college students fell short of the recommended two hours of study time for every hour of class time; a well established rule of thumb in higher education (p. 30). College students are reported to enter classes with a lack of "work ethic that prepares them for their instructors' expectations or course requirements. These are only a few examples of what it takes to be college-ready and how new college students are falling short (Conley, p. 7).

Purpose of the Study

Test results show that more often, high school seniors who take a “regular” English class and earn a grade of “B” or better are assessing into a remedial-level English course after taking a college's required placement test. Planty, Provasnik and Daniel (2007) define regular high school English as "at

grade level" (p. 35). Not included in this definition are courses classified as low academic-level or honors-level.

The purpose of this study is to determine if the grade earned in an 11th and 12th grade English language-arts (ELA) class predicts placement level into an English class at a community college. The study also explores common language between 11th & 12th grade ELA and college-level English through an analysis of the Common Core State Standards and course content for [community] college-level English.

While much of the literature reflects a number of studies that address high school students' difficulties with math and their difficult transition from secondary to postsecondary/entry-level college math (Agustin, Agustin, Brunkow & Thomas, 2012; Bahr, 2007; J. Jones, 2007; Melguizo, Bos & Prather, 2011; Hollis-Sawyer, 2011; Shelton 2008), few studies have been conducted that address high school seniors' transition into a college-level English course.

The problem to be addressed is that first-time college students are placing into remedial English courses. The variables that will be used to answer the research questions below are: last grade in high school English, English placement level, time out of high school, gender, age, GED or diploma, CCSS, college-level course content (CSU/UC transferable-level English) and remedial English course content (just below college-level English). The research questions proposed for this study are:

1. To what extent is the last grade in high school ELA an accurate predictor for placement into a college-level English course?
2. To what extent are the last grade in high school ELA and time out of high school an accurate predictor for placement into a college-level English course?
3. To what extent is time out of high school an accurate predictor for placement into a college-level English course?
4. Does common language exist between 11th and 12th grade ELA curriculum and college-level English course content?

Limitations of the Study

Limitations of the study are as follows:

- The population of students in this study are not representative of all 112 California community colleges;
- Students who took the ACCUPLACER® Test (research questions 1-3) took high school ELA under the old Content Standards for California;
- Grades were self-reported;
- Pending approval by the State Board of Education, the CCSS will be fully implemented in the 2014-15 academic year. Therefore, no data is available to evaluate the success of 11th and 12th grade students who took ELA under the CCSS;

- A content analysis was not performed for common words between ACCUPLACER® and the CCSS. This is under consideration for a future study;
- The required literature English course needed for transfer to the CSU and UC was not included in the study;
- Advanced placement course curriculum was not included in this study.

Delimitations of the Study

The site of this study was selected due to the access of the data for the population studied. Based on reports by the Institutional Research Department at the community college, a large percentage of the student population began their educational experience at this college by having to take a math and/or English course at least one level below college-level which is required for attainment of an associate's degree and transfer to a four-year college or university. Remedial students are most affected by this phenomenon, especially those who considered themselves college-ready.

This researcher chose not to study students from middle class or affluent populations because they are least likely to be required to take a remedial course. Such students may have parents with at least a bachelor's degree or educational resources that may not be available to low-income and under-represented students. The students on which this study is based do not have the

cultural capital necessary for successful transition into the postsecondary education system.

Key Terms and Definitions

The following definitions are provided as a means of ensuring the consistency and understanding of these terms throughout this study.

ACCUPLACER® (ACCUPLACER®, 2012)

A comprehensive battery of tests designed to provide information about students' English, reading, mathematics and computer skills.

Alignment (Case, Jorgensen & Zucker, 2004)

In the context of education, as the degree to which the components of an education system such as standards, curricula, assessments, and instruction work together to achieve desired goals.

Archival Data (AmDoc, 2014)

Information an organization maintains for long-term storage and record keeping purposes, but which is not immediately accessible to a user or organization.

Articulation (Ernst, 1978)

The systematic coordination between an educational institution and other educational institutions and agencies designed to ensure the efficient and effective movement of students among those institutions and agencies, while guaranteeing the students' continuous advancement in learning.

California Community Colleges (CCC) (California Community College Chancellor's Office, 2012)

The largest system of higher education in the United States with 112 colleges and 2.4 million students; provides workforce training, basic courses in English and math, certificate and degree programs, and preparation for transfer to four-year institutions.

California State University (CSU) (California State University, 2011)

A leader in high-quality, accessible, student-focused higher education, with 23 campuses, approximately 437,000 students, 44,000 faculty and staff and is the largest university system in the United States.

College-Level English (Long, 2013)

A college English course that meets the requirement for attaining an associate's degree at a community college and/or transfer to a four-year university or meets a graduation requirement at a four-year university.

College Readiness (Conley, 2008a)

The level of preparation a student needs in order to enroll and succeed -- without remediation -- in a credit-bearing general education course at a postsecondary institution that offers a bachelor's degree or transfer to a baccalaureate program.

Common Core State Standards (Council of Chief State School Officers (CCSSO), National Governors Association Center (NGA))

A voluntary "state-led" initiative led by the Council of Chief State School Officers (CCSSO) and National Governors Association (NGA) in an effort to establish clear and consistent education standards.

Common Language (Long, 2014)

Key words used across ELA CCSS and community college curricula.

Content Analysis (Krippendorf 1980, Weber, 1990).

A research technique for making replicable and valid inferences from data to their context; a research method that uses a set of procedures to make valid inferences from text.

CurricUNET (Governet, 2013)

A curriculum management system used by colleges and universities that provides a place where academic disciplines can store curriculum materials.

Early Assessment Program (EAP) (California State University, 2013)

A collaboration between the California State University (CSU) system, the California Department of Education (CDE), and the State Board of Education (SBE) to ensure that high school students on the college path have the skills necessary and expected by the CSU to successfully complete college-level English and mathematics upon graduation from high school.

English Placement Test (EPT) (California State University, 2009)

An assessment administered by universities in the California State University system of all new entering undergraduate students for the purpose of placing them in the appropriate English course.

Human Coding (Krippendorff 1980, Weber 1990, and Neuendorf, 2002)

The selection of groupings or units of words determined by a researcher as important, having some special knowledge and preparation, and who make judgments about variables as applied to each message unit.

Re-Entry Student (Long, 2014)

A student who has been out of high school and/or college and has not returned to school after a few years to pursue a college education.

Regular (Grub and Associates, 1999)

College-level instruction.

Regular (Planty, Provasnik and Daniel, 2007)

At grade level.

Remediation (Grubb et al., 1999)

A class or activity intended to meet the needs of students who initially do not have the skills, experience or orientation necessary to perform at a level that institutions or instructors recognize as regular for those students.

Statistical Package for the Social Sciences (SPSS)

A data management and analysis product that features modules for statistical data analysis, including descriptive statistics such as plots, frequencies, charts, and lists, as well as sophisticated inferential and multivariate statistical procedures.

State Board of Education (SBE) (California State Board of Education, 2012) The K-12 policy-determining body for California that sets K-12 education policy in the areas of standards, curriculum, instructional materials, assessment, and accountability, and also adopts regulations (Title 5) to implement a wide variety of programs created by the California Legislature.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

There are various definitions of articulation in the context of education. Most often, however, articulation is used to describe agreements between two-year and four-year institutions. One such definition is "the process of comparing the content of courses transferred between postsecondary institutions such as colleges and universities" (USLegal, 2010). This is also known as "course articulation." Another definition of articulation is an agreement between a high school and a postsecondary institution regarding the awarding of both secondary and postsecondary credit for a dual enrollment course (USLegal, 2010).

After an extensive search of the literature, Ernst's (1978) definition best describes articulation in the context of this study. He defines articulation as, "the systematic coordination between an educational institution and other educational institutions and agencies designed to ensure the efficient and effective movement of students among those institutions and agencies, while guaranteeing the students' continuous advancement in learning" (p. 32).

According to Brawer (1985), articulation can be looked upon as a two-way street where community colleges operate as the pivotal point between the "feeder" secondary schools and the "receiver" four-year colleges and/or

universities. Because high schools also feed into community colleges, they are also considered receiver institutions.

In 1985, Brawer reported that around 80% of associate's degree recipients transferred to senior colleges. In this context, Brawer refers to senior colleges in the same context as "four-year colleges and/or universities," institutions offering bachelor's degrees (p. 2). In 2012, the CCCCO reported that nearly 42 percent of first-time students with a minimum of 12 units who attempted transfer-level math or English during enrollment transferred to baccalaureate-granting institutions within six years, nearly a 50% drop in the rate of transfer. A. Jones (2007) notes that “researchers have documented disconnects between secondary and postsecondary” education. The center of this research, however, has been around mathematics (not English) assessments and expectations of instructors.

Cohen & Brawer (2008) reported that more than one-third of all class sections offered in mathematics and English composition were at a pre-college level (p. 294). As a means of strengthening the relationship between secondary schools and community colleges while raising the bar of community college education, improving the quality of education in feeder schools is necessary in order to positively affect community college curriculum. Two-year colleges have developed several types of programs geared toward strengthening the academic preparation of incoming students, and facilitating the transfer from high school to college. Examples of these types of programs are:

- Middle College High Schools --These high schools are designed to introduce underserved students to the community college in an effort to motivate and encourage them to continue with their education after high school;
- Bridge programs designed to help recent high school graduates transition into college;
- Community college recruiter/student ambassadors -- recruitment visitations by a recruiter or students to encourage junior high and/or high school students to consider community college as their choice after high school.

Concerning the development of English composition curriculum, there is little evidence in the literature that identified any collaboration between high school English teachers and community college instructors. Brawer (1985) stressed that college instructors do not communicate college offerings or requirements with high school teachers or show any interest in what high school students are being taught in their ELA classes in their junior and senior years. What results is that some new college students eventually drop out of their English composition course or fail the course entirely citing that the course was too difficult. Lack of preparation for English composition will be addressed under the College Readiness section of this chapter.

Common Core for California Public Schools

In 1997, the State of California developed standards for California schools to follow in order for students to meet minimum proficiency in the disciplines students are required to master. Ruth Green, President of the California State Board of Education and Jack O'Connell, State Superintendent of Public Instruction stated the following with regard to the ELA content:

- Standards create a vision of a comprehensive language arts program;
- Knowledge acquisition is a part of literacy development;
- Standards are central to literacy reforms;
- Standards describe what, not how to teach;
- Standards help to ensure equity and access for all (California SBE, 1997).

These standards were developed by a committee comprised of representatives from the UC and CSU systems, the CCC system, PreK-12 and community members. In spite of this committee of experts in their respective fields, there seemed to be a gap or disconnect between what students learn through their senior year of high school and what they are expected to know upon entering college. Venezia et al. (2003) argued that this disconnect inhibited the ability of schools and colleges to address the issues of inadequate preparation for college, high levels of remediation and low rates of college completion. They cited the major problem that students' and teachers' poor knowledge of college policies mad good preparation difficult. Adding to the problem is that many high school

students, especially the most disadvantaged, receive inadequate counseling and opportunities for college preparation (p. 35).

In 2009, the Council of Chief State School Officers (CCSSO) and the NGA made a commitment to develop standards that would help to prepare students for success in college and a career. The Common Core State Standards (CCSS) is a voluntary "state-led" initiative led by the CCSSO and NGA in an effort to "establish clear and consistent education standards."[1] The CCSS were created specifically for ELA and mathematics for kindergarten through grade twelve. Founded upon the best state standards to ensure that students in the United States are globally competitive, these are internationally benchmarked to the top performing nations. To date, 45 states, the District of Columbia and, four territories have adopted the CCSS. In August 2010, the Common Core State Standards were adopted by the California SBE.

The California SBE adopted the CCSS to ensure that its students meet the expectations of postsecondary institutions and employers. By learning under these new standards, students will be prepared to succeed in a global economy and society. Additionally, the CCSS have rigorous content and application of higher knowledge thinking through higher order thinking skills (Griffith and Manthey, 2010). [2] Among the benefits of the Common Core Standards (CCS),

[1] Common Core State Standards Systems Implementation Plan for California (2012).

[2] Moving to the Common Core Standards presented by Sherry Skelly Griffith, Legislative Advocate and George Manthey, Ed.D, Assistant Executive Director of Educational Services both from the Association of California School Administrators on November 22, 2010.

expectations will be clear to students, and states can now collaborate on best practices, professional development, and sharing materials.

Adoption of the CCSS for ELA by the California Department of Education (CDE) and the SBE was originally planned for December 2016. Pending the legislation required to create a new adoption cycle, the current timelines are as follows:

- Framework approved by May 2014;
- Materials adopted by August 2016;
- Materials available by November 2016.

Remediation

To address articulation between high school and college, an appropriate starting point would be to reiterate the meaning of remediation which will be a focal point of the study to be discussed in Chapter Three. As stated in Chapter I remediation is defined by Grubb et al. (1999) as “a class or activity intended to meet the needs of students who initially do not have the skills, experience or orientation necessary to perform at a level that institutions or instructors recognize as ‘regular’ for those students” (p. 174). Grubb et al. add that "Virtually all two- and four-year colleges provide some form of remedial education" though more remedial courses will be found in community colleges than in four-year institutions. The proportion of coursework dedicated to remediation range from 25 to nearly 80 percent (Grubb et al., p. 171).

Conley has written extensively about the problems associated with college readiness that create a need for remediation when students begin college (Conley, 2007, D.T. Conley 2007a, 2007b, 2008a, 2008b). With regard to writing, Conley asserts that students' writing skills are lacking because large class sizes limit teachers' ability to pay the required attention to students that will help them be successful. A great amount of latitude is permitted in language arts classes of most high schools, and what is taught has no sequence (Conley, p. 96). In spite of the requirement of most colleges that students have four years of English courses in high school, there is strong variation in high school curriculum resulting in the scarcity of students with well-developed reading and writing skills. Students will be more ready for entry-level college courses if their high school ELA curriculum is progressively more challenging from year to year (Conley, 2007).

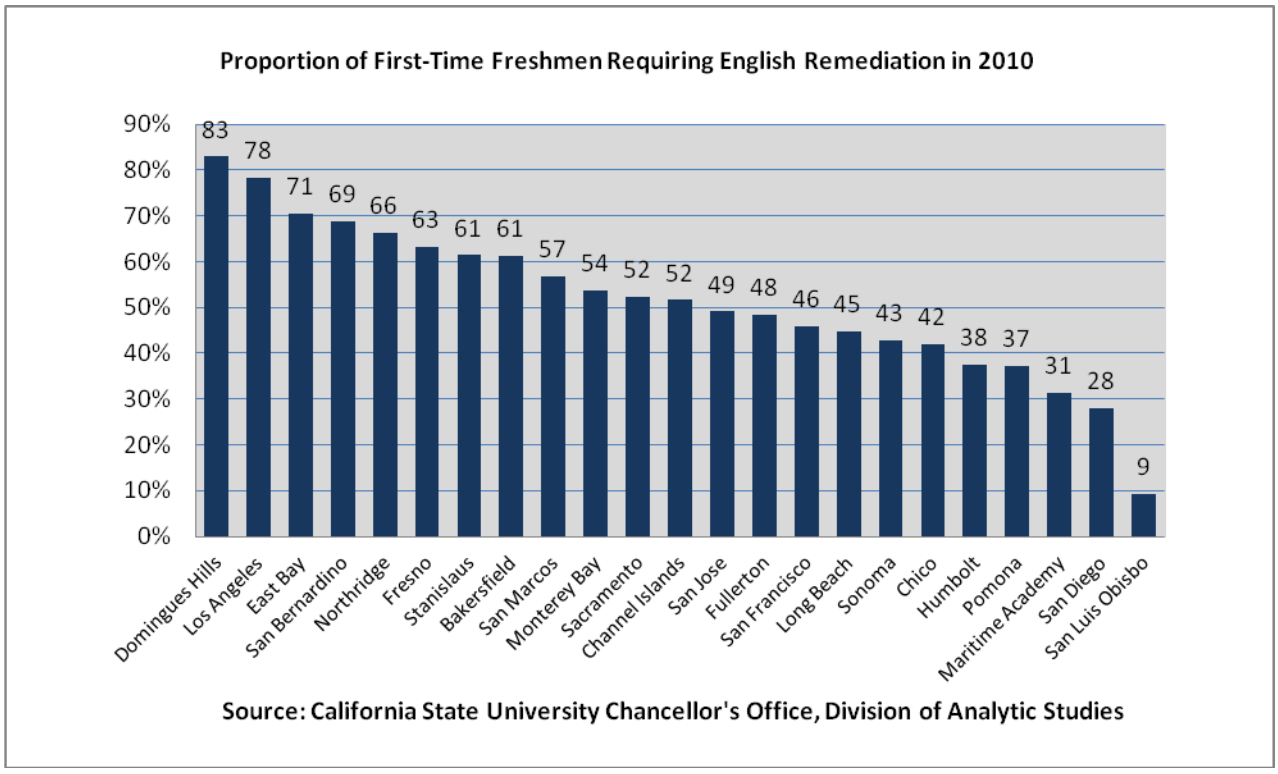
Conley, (2007b) expresses another area of concern in ELA; the "amount of time students spend expanding vocabulary and learning word analysis skills which are building blocks of advanced literacy" (p. 27.) He adds that students should receive instruction in strategic reading, such as knowing when to slow down to understand key points, when to reread a passage and how to underline strategically to highlight only the most important points in a text (p. 27).

The CSU system has published remediation statistics among first-time freshmen systemwide and by campus since 1997. While statistics show that there has been a slight decrease in students requiring remediation, the

percentages are still staggering. In 2010, the CSU reported that of 47,855 first-time freshmen, 23,602 (49.3%) needed remediation in English, constituting nearly half of all incoming freshmen. Table 1 outlines the 2010 statistics of first-time freshmen requiring English remediation.

Table 1.

Proportion of First-Time Freshmen Requiring English Remediation in 2010.

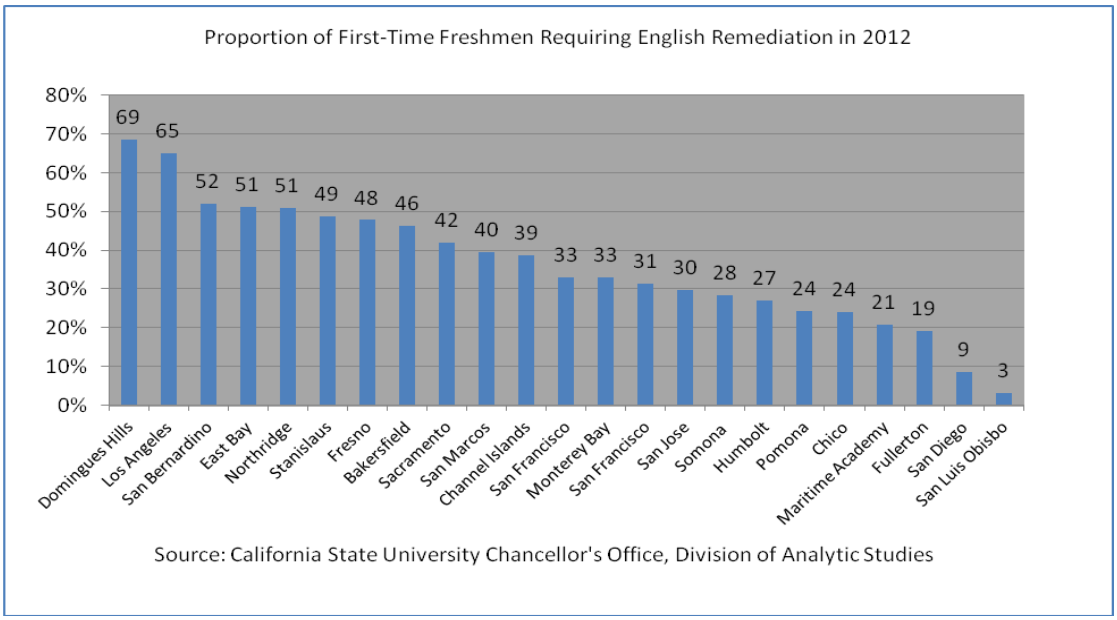


Note. California State University Chancellor's Office, Division of Analytic Studies Retrieved from http://www.asd.calstate.edu/remediation/10/Rem_Sys_fall2010.htm.

More than half of the 23 CSU's first-time freshmen were required to take English remediation. While there was a slight reduction in 2012, the CSU system reported that of 55,692 first-time freshmen, 18,690 needed remediation in English, consisting of nearly one third of all incoming freshmen. Table 2 provides an outline of the 2012 statistics of first-time freshmen requiring English remediation.

Table 2.

Proportion of First-Time Freshmen Requiring English Remediation in 2012.



Note. California State University Chancellor's Office, Division of Analytic Studies Retrieved fromhttp://www.asd.calstate.edu/remediation/12/Rem_Sys_fall2012.htm.

According to the National Council of State Legislators (NCSL) (2013), the need for remediation is widespread. "When considering all first-time undergraduates, studies have found anywhere from 28 to 40 percent of students enroll in at least one remedial course. When looking at only community college students, several studies have found remediation rates surpassing 50 percent (Baustch, 2013).

The CCC is also addressing its concerns about remediation. The CCC is the largest community college system in the United States with 112 campuses and 71 off-campus centers. In 2012, CCC SSTF released its recommendations for the purpose of improving the educational outcomes of its students and the workforce preparedness of the state of California.

The CCC SSTF (2012) reported that more than 70% of its students enter the system underprepared to do college level work. "A majority of these [students] are first-generation and low-income college students, and/or are from underrepresented groups" (p. 5). The task force reported that "in the CCCs, 79% to 90% of first-time students who take an assessment test require remediation in English, math or both" (p. 13). Because of the large numbers of people entering community colleges to earn an associate's degree, a vocational certificate or for their own personal enrichment, the students who start out in remedial classes could advance to college-level classes and then transfer to a university. Community college students who need to take English classes in order to

complete an associate's degree and/or transfer to a university are being forced to wait as long as two years before they can enroll in English courses.

Many students are required to take remedial course(s) because their placement scores indicate the need (ACCUPLACER®, 2011). Some re-entry students may struggle academically due to years of not exercising skills acquired when they were in high school. Students with one or more learning disabilities or those who may be members of immigrant populations could also benefit from taking one or more remedial courses.

Remediation in Postsecondary Education

Studies have shown that the estimated cost of remediation across all types of higher education institutions is well over two billion dollars (Levin & Calcagno, 2008).

Within the CSU system, remedial courses are required for students who score between 120 and 150 on the English Placement Test (EPT) developed by the Educational Testing Service (ETS). These classes are graded for credit or no credit. While credits can be earned, they do not count as credit toward a bachelor's degree. If the student does not receive credit for the course and advance to college-level English, the university will declare the student academically disqualified regardless of how well he/she performs in other courses. Ultimately, he/she is dismissed from the university with a recommendation to take the remedial course at a community college and

complete his/her lower division coursework before returning to the university. This can be devastating to a first-time freshman.

In a 2009 report addressing first-time freshmen who did not complete the English proficiency requirement during their first academic year, the following was discovered:

- 49,274 were required to meet English remediation requirements;
- 27,734 needed to complete remedial English before starting college-level course work (56.3%);
- 5,474 did not complete their remedial coursework by fall 2008 (12.7%);
- 3,600 did not complete remediation within 1 year and were disenrolled in fall 2008 (8.3%), (Quillian, 2009).

As previously stated, students who fail remedial English are advised to complete English (or math) remediation at the community college level. Some will be allowed to return to the university, while others will be guaranteed admission upon completion of all lower division requirements. Many students will drop out, effecting college retention and persistence rates.

Alignment of High School English to Expectations at the College Level

In Minding the Gap (2007), Tell and Cohen reported that in some states, discussion took place among K-16 and/or P-20 educators to develop curriculum that would put students on the path to success at the college level. These

discussions, however, proved insufficient to increase the numbers of high school students prepared for college-level work. They were also found not to have been systematic enough to allow any state to structure "curricula and assessments into a coherent, integrated 9-14 continuum" (p. 81).

After the February 2005 National Education Summit, states that were members of the American Diploma Project (ADP) Network formed by Achieve, Inc. took alignment discussions of public policy to the statewide level. Membership in this body requires commitment and participation by state governors and the leadership from K-12 and postsecondary education as well as employers. What resulted was a "cross-sector, co-owned *Academic Standards for College and Work* that ultimately align high school standards, assessments, and courses required for graduation with credit-bearing course work and with requirements for entry-level employment" (Tell and Cohen, 2007, p 81).

Very few state high school assessments measured the skills necessary suggested by the ADP benchmarks. It has become evident that the high school diploma no longer symbolized preparation for life after high school. Ultimately, Tell and Cohen (2007) warned that the states must set policies that align high school exit standards with the demands of college and work so that students can:

- Enter into credit-bearing course work in two- or four-year colleges, without the need for remediation and with a strong chance for earning credit toward their program or degree;

- Gain entry-level positions in quality job and career pathways, which often require further education and training (p. 82).

In a 2005 meeting of the nation's governors of the National Education Summit, cosponsored by Achieve and the National Governors Association, participants were challenged by a long list of data documenting the failure of high schools in the United States to prepare students for the demands of college and work. They found the following:

- Three-quarters of high school graduates go on to college, yet nearly a third immediately require remediation because they lack basic reading, writing and math skills;
- One out of every four students enrolled in a four-year college and nearly half of all community college students do not return the first year, and far fewer earn two- or four-year degrees in a timely fashion;
- Surveys of recent high school graduates reveal that some 40 percent of those in college and 45 percent of those in the workforce recognize they have significant gaps in the skills they need to succeed (Tell and Cohen, 2007, p. 82).

As part of the ADP in five years of research, Achieve found that across states, colleges' and employers' expectations far exceed students' knowledge to be successful when they enter college or the workforce. They further found that that what it takes to earn a high school diploma is largely disconnected from what it takes for high school graduates to compete in college or the workplace. They

found that “because academic standards for high school students do not reflect college admissions and placement requirements, students often get conflicting signals from high schools and colleges about what constitutes adequate preparation” (Tell and Cohen, 2007, p. 82).

Benchmarks materialized from the Achieve findings concentrate around the core knowledge and skills required by both postsecondary institutions and employers. They are both ambitious yet attainable and are considered by colleges and employers as essential skills for all high school graduates.

The ADP college and workplace readiness benchmarks for English are organized into the eight strands. Below are the eight categories with summarization:

A. Language: students' vocabulary will be sophisticated and their sentences free of grammatical errors. Essential to success in classrooms and workplaces beyond high school are correct grammar, correct usage, punctuation, capitalization and spelling;

B. Communication: essential to success are strong communication skills and the ability to transmit other academic skills. Students will have the ability to effectively communicate concepts and detailed information contained within readings, lectures and class discussions if they are to be successful in credit-bearing college coursework. Students should also be able to listen attentively to colleagues or customers and to express ideas clearly and persuasively;

C. Writing: students and employees should have strong writing skills and be able to communicate essential information effectively via e-mail, write proposals to obtain new business, communicate key instructions to colleagues, or convey policies to customers. They must also have the ability to write quickly and clearly on demand whether in the workplace or in college classrooms;

D. Research: Credit-bearing coursework in colleges and universities will require students to identify areas for research, narrow those topics and adjust research methodology as necessary. College students will be asked to consider various interpretations of both primary and secondary resources as they develop and defend their own conclusions. Similarly, in the workplace, employers depend heavily on the ability of employees to evaluate the credibility of existing research to establish, reject, or refine products and services. Upon completion of their course, students should have the ability to frame, analyze, and solve problems while building on the ideas and contributions of others.

E. Logic: In the college classroom, students will be taught to reason — to think critically, logically and dispassionately — an absolutely necessary skill for success. Reasoning ability allows for the systematic development of ideas, the ability to make sound choices, and the ability to make and understand persuasive arguments. High school graduates today are increasingly expected to judge the credibility of sources, evaluate

arguments, and understand and convey complex information in the workplace and as they exercise their rights as citizens.

F. Informational Text: College students will learn to read and interpret a wide range of reference materials; periodicals, memoranda and other documents that may contain technical information. These skills are also essential for employees in the workplace. Students and employees should also learn to find, comprehend, interpret, and judge the quality of information and evidence presented in such texts. They must also have the ability to report their own evaluations, interpretations, and judgments in ways that will either advance scholarship in an area of postsecondary study or contribute to workplace productivity.

G. Media: Media vehicles such as television, radio, film, websites and videos are prominent modes of communication. They use sound and moving images to convey information, entertain and persuade in ways that are distinct from the printed word alone. Students, employees -- all citizens - need to analyze information coming from a wide variety of media to develop reasonable positions on matter of public policy and personal interest and recognize potential bias at use in new and mixed media markets.

H. Literature: Among the benefits of reading literature and carefully analyzing significant works from both English and other languages is the appreciation of our common humanity. Regular practice in analyzing

> literature also improves the quality of student writing. Practice in providing evidence from literary works to support an interpretation fosters the skill of reading any text closely and teaches students to think, speak, and write logically and coherently. In addition, employers report that employees who have considered the moral dilemmas encountered in literary characters are better able to tolerate ambiguity and nurture problem-solving skills in the workplace. Postsecondary faculty from a wide variety of disciplines note that the skills required by thorough literary analysis are applicable in a range of other humanities, science, and social science disciplines. Retrieved from http://www.achieve.org/adp-english-benchmarks.

The English ADP Benchmarks demand strong oral and written communications skills that are fundamental in college classrooms and most jobs of today. Analytic and reasoning skills once associated with advanced honors courses in high schools are also included. The ADP Benchmarks for mathematics contain content typically taught in algebra I, algebra II, and geometry, as well as data analysis and statistics (Tell & Cohen, 2007).

Between 2005 and 2006, the ADP Network was joined by twenty-nine states. Of these, thirteen made a commitment to a 10-15 month formal process to align K-12 English and math with college and employer requirements. The thirteen states were referred to as “Cohort States.” Cohort I began in 2005 and consisted of Arkansas, Colorado, Georgia, Louisiana, Massachusetts, and

Pennsylvania. Cohort II began in 2006 and was comprised of Idaho, Maryland, Michigan, Minnesota, North Carolina, New Jersey, and Oklahoma.

The thirteen states worked together to produce Academic Standards for College and Work in English and Mathematics. These standards are:

- Adopted, endorsed, or otherwise recognized by state postsecondary institutions as defining the knowledge and skills necessary for placement into credit-bearing courses;
- Adopted by the state board of education or other appropriate governing body as defining the knowledge and skills in math and English that all students should meet by the end of high school;
- Verified or endorsed by employers and the business community as constituting skills necessary to enter and succeed in the 21st century workplace (Tell and Cohen, 2007, p. 83).

"The states also commit to incorporating these standards into a range of policies and practices, such as high school graduation requirements, course descriptions, high school assessments, and postsecondary placement policies and assessments" (Tell and Cohen, 2007, p. 83).

While the commitment to accomplishing this monumental task was genuine, historically, postsecondary institutions and their leadership have been unable to sustain their partnerships with secondary educators (Tell and Cohen, 2007, p. 84). The Academic Standards for College and Work in English and

Mathematics were never formally adopted, and therefore, were never implemented.

College Readiness

Conley (2008a) defines college readiness as "the level of preparation a student needs in order to enroll and succeed -- without remediation -- in a credit-bearing general education course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program." He defines "succeed" as "completing entry-level courses at a level of understanding and proficiency that makes it possible for the student to consider taking the next course in the sequence or the next level of course in the subject area."

As of this writing, high school ELA instruction was lacking in the systematic development of the full range of literacy skills needed for success in college. In Minding the Gap, Conley (2007) maintained that high school students fared poorly in writing, in part because of large class sizes and the teachers' inability to pay careful attention. He cited the National Commission on Writing in America's Schools and Colleges' report (2003) that 75% of high school students never received writing assignments in subject areas in which extensive writing is required in college and that many high school teachers avoided instruction in grammar "because it does not interest them or it is not their strong suit" (p. 96).

Conley (2007) further argued that the typical ELA "sequence" in most high schools permitted great latitude in what was taught and was not really a

sequence at all. He elaborated that given the variation in high school English curriculum, entering college students with well-developed reading and writing skills were a scarcity. Conley suggested that a well-sequenced ELA curriculum with progressively greater challenges in what students read and how they write would help more students be ready for entry-level college courses, essentially all of which require sophisticated reading and writing skills.

Readiness in Reading, Writing and Critical Thinking

In Minding the Gap (2007), Conley stated that students must have the ability to be active strategic readers who use summarization, paraphrasing, and can critique what they read. They should also be able to take notes that capture the important elements of what they read. Once they reach college, they must have the ability to express and defend positions in the material they read. This means having the ability to cite supporting evidence and construct strong arguments for positions they take, (p. 95).

Conley further stated that students who were adequately prepared for a literature course would also be familiar with a range of traditions in world literature. This literature would consist of men and women authors from the United States and Great Britain. They would also know literature of various forms and genres. Other key areas of readiness are:

- knowledge of non-literary works such as text books and related material and the ability to read and interpret tables, graphs, charts and other visual figures;
- the ability to write: writing forces cognitive development to occur that requires logical and orderly reasoning and precise decisions about word choice, sentence structure and style considerations;
- capitalization, punctuation and the ability to follow the basic rules of language to write clearly and convincingly. Students should be able to communicate ideas, concepts, emotions and descriptions. By doing so, they employ a range of techniques and strategies associated with good writing, including focusing on a topic, understanding how to construct and use a thesis statement, being able to use a variety of forms of logic to formulate and defend arguments presented, and knowing how to be persuasive and expressive without abandoning logic;
- editing: students must be reflective, self-analytical, and able to apply general rules of language to the specifics of a particular piece of writing. Editing requires persistence and preplanning to allow enough time pass for a finished work (p. 96).

In a report by the Center for Educational Policy Research, thousands of high school syllabi across the United States were analyzed. The report found

that an extreme amount of necessary content for college success was missing from high school instruction (Conley, 2007b). The Center made the following recommendations as a means of closing the gap between high school and college English:

- In language-arts, the amount of time that students spend expanding vocabulary and learning word analysis skills should be increased. Expanding vocabulary and learning work analysis skills are what build advanced literacy. Instruction in strategic reading, such as knowing when to slow down to understand key points, when to reread a passage, and how to underline strategically to highlight only the most important points in a text should be provided;
- Students would benefit tremendously if the amount and quality of writing students are expected to produce were increased. Students' writing skills should be developed systematically across all classes and across a range of writing genres, especially expository, descriptive, and persuasive writing. This could be accomplished by increasing the amount of short papers such as, three to five page papers requiring careful reasoning. The Center stresses that these papers should be supported by research and citations. Students should be expected to edit and revise these papers rather than submit them only once (Conley, 2007b, pp. 27-28).

State High School Assessments

Brown and Conley (2007) reported that within the last 20 years, states moved quickly to institute systems of standards and assessments. State assessments particularly had become important because many states now have a high school exit exam required for high school graduation. While the content and criterion validity were not well documented, many states are using high school exams to determine readiness for postsecondary educational pursuits.

Standards and assessments have been established for nearly all 50 states. Their purpose is to establish high expectations of students and ensure that they are well prepared for the world of work and able to find employment that would that would give them a start at supporting themselves. In spite of this, many states were beginning to question the relationship between high school exit exams and college placement tests. Brown and Conley (2007) reported that states such as Michigan abandoned their high exit exam and began using the American College Test (ACT) while Illinois, Kentucky and Colorado require high school students to take the test along with the high school exit exam. Washington and Florida still utilize the high school exit exam but have begun allowing the Scholastic Assessment Test (SAT) or portions of the test as a substitute provided that the score is within an acceptable range. Higher education institutions in Texas are expected to follow the Texas Success Initiative by attaining test scores from the Texas Assessment of Knowledge and

Skills. Students who perform at a specified level on the New York Regents Examination while they are in high school are guaranteed admission to the City University of New York (CUNY). California uses the California Standards Test (CST). California 11th grade students can also participate in the CSU Early Assessment Program (EAP). This program offers an option to take an extended version for the CST that provides placement information to the CSU (p. 138).

According to Brown and Conley (2007) "a better understanding of the alignment between these tests and college-readiness standards can offer insight into the fundamental importance of the relationships between a high school education and college readiness." As the numbers of students who attend college increase and the rates of remediation continue to remain high (especially within community colleges), state high school exams are extremely important to students and teachers. The above assertion is made given the importance and influence of state high school assessments (Brown & Conley, 2007, 138).

The Brown and Conley (2007) study drew upon emerging theories of systems coherence and alignment to justify the examination of the relationship between state tests and postsecondary success standards. Their theoretical framework asserts that, "by creating more explicit connections between local educational systems and state standards and assessments, superior learning will result" (p. 138).

Brown and Conley (2007) addressed two theoretical perspectives. The first of these is the "signaling theory." They stated that signaling theory had been

adapted by the high school–college transition process, and assumed that high school students, teachers, administrators, and others received signals from state standards and assessments and postsecondary admission requirements, among other sources, about what was important to teach and learn in high school. Brown and Conley further asserted that if the signals were unclear or contradictory, those who received them could not create programs or adapt practices that would be internally consistent or that aligned with what came next for students. When this was the case, the signal tended to be misinterpreted or ignored and the potential power of the signal to the system was lost or greatly diminished (p. 139).

For Brown and Conley (2007) complete alignment or consistency among state assessments and college admission standards was not assumed to be expected and the lack of alignment or consistency was not necessarily and automatically bad. Considering the expanding use by states of high school examinations, these researchers found it worthwhile at the least to examine the degree of alignment that exists between state high school exams and college-readiness standards (p. 139).

According to Brown and Conley (2007), states' adoption of P-16 legislation is another indicator that state policymakers are "reconceptualizing the organizational structure of their public education systems from preschool through postsecondary education" in ways that connect the levels more directly. By examining the relationship between state high school assessments and college-

readiness standards the current relationship between levels in the educational system can be better established (pp. 139-140).

In their study, Brown and Conley analyzed sixty English and math assessments from twenty states including alignment dimensions. These tests identified knowledge and skills necessary for success in entry-level university courses (p. 137).

To determine the comparison between the content of state high school assessments and a set of standards and objectives keyed to the knowledge and skills necessary for success in select American research universities, Brown and Conley (2007) applied established alignment analysis methodology to their study by utilizing the Knowledge and Skills for University Success (KSUS) standards. At the time of the study, these standards were the most comprehensive of their type in the country (p. 140). The English standards reading and comprehension, writing, critical thinking, and research skills were grouped into four headings. For the purpose of this dissertation, only ELA will be addressed (p. 140).

The Brown and Conley (2007) study findings indicated "that state high school assessments and the knowledge and skills necessary for university readiness align in areas that might be characterized as more basic and do not align as well in areas requiring more sophisticated cognitive functioning." The study concluded that for high school exams, only a portion of what is necessary for college readiness is covered and that from a "criterion validity" perspective,

test results should be interpreted with caution if used for postsecondary decisions (pp. 152-153).

According to Brown and Conley (2007), "state tests were not designed with postsecondary standards as a reference point." These assessments are generally given in the 10th or 11th grade and are better aligned with university-readiness standards than expected. Brown and Conley reaffirm their conclusion that "some reasonable degree of alignment" exists in most of the country between high school content and at minimum, a subset of college-readiness skills. What is of concern here is whether this level of alignment sufficiently prepares students who intend to pursue postsecondary education coupled with the fact that the numbers of these students are increasing.

As noted in the study, Brown and Conley (2007) conceded that "alignment is not evenly distributed across the standards." They found that for English, reading and writing standards in English explain most of the alignment. Research skills and critical thinking standards are "seriously underrepresented or nonexistent in state tests" (p. 153).

Brown and Conley (2007) recommend that states will need to "revisit the content domains from which exam items are drawn" if they intend to use their high school exams to generate information on college readiness or placement. They add that the CSU EAP for example, provides one model of how to expand a state test so that the results for college placement purposes are useful (p. 153). The EAP also provides information to high school students and teachers on what

should be taught in high school classes for more students to be ready college (p. 153).

The study conducted for this dissertation will assume that the students in the study, who are high school graduates, participated in the California Standardized Testing and Reporting (STAR) Program. The STAR Program consists of four assessments designed to determine how well the students and school is performing. Another state required exam is the California High School Exit Exam (CAHSEE). The CAHSEE which can be taken as early as the 10th grade identifies students who are not developing the skills considered to be essential for life. Students must pass the CAHSEE to receive a high school diploma.

Students have the option of participating in the EAP, a collaboration with the CSU, the CDE and the SBE. The goal of the EAP is to insure that students who plan to go to college have the skills to successfully complete college-level English and mathematics.

The required assessment at the community college designed to identify students who have the skills to be successful in college-level English and math may also be a determent of alignment with the aforementioned high school assessments as was the intent of the Brown and Conley study.

High-Stakes Testing: Unintended Outcomes

B. Jones (2007) found that several professional organizations objected to a single test score being the determining factor in making high-stakes decisions about students. One example is the National Association of School Psychologists (NASP). NASP “strongly opposes the use of large-scale testing as the sole determinant for making critical, high stakes decisions about individual students and educational systems, including graduation or receipt of a diploma” (p. 67). The American Educational Research Association (AERA) stated that “Decisions that affect individual students’ life chances or educational opportunities should not be made on the basis of test scores alone” (p. 67). These respected professional organizations have stated clearly that they object to the use of test scores alone as a means of making high-stakes decisions. In spite of this, test scores have been used for that purpose.

B. Jones (2007) further stated that when test scores are relied upon to make high-stakes decisions, they make inferences about the quality of teachers, administrators, and schools. He explained that from a measurement perspective, it is unacceptable to make inferences about educational quality using standardized test scores (p. 68). B. Jones credited Popham (2000) who argued that “standardized tests (also) have a different measurement mission than indicating how good or bad a school is. Popham also asserted that "Standardized achievement tests should be used to make the comparative interpretations that they are intended to provide" and that, "They should not be

used to judge educational quality (p. 68). In spite of these warnings by educators and those with the expertise in test measurement, the test scores of students have been consistently used to determine school quality."

B. Jones (2007) argued that there is strong evidence that high stakes testing has coerced teachers into aligning curriculum to the areas tested. This can be considered a positive effect of high stakes testing in that "teachers should be responsible for teaching the state curriculum" (p. 69). An example cited was that teachers and administrators in one Ohio district found that testing helped the school system align curriculum between grade levels, helped [educators] identify curricular weaknesses, and made educators more cognizant of educational outcomes" (p. 69). Another benefit was that the "testing had standardized the curriculum across the state" and gave teachers a standard to which to teach (p. 69).

According to B. Jones (2007), a negative effect of high-stakes testing was that state curricula were too extensive to be accurately measured with a one-time standardized test resulting standardized tests becoming limited to only a few subjects such as reading, writing and mathematics. This limited the curriculum to only the subjects tested (p. 69). Jones, Jones and Hargrove (2003) found that subjects such as social sciences, health, music, art and physical education may be completely excluded from curriculum.

Another harmful effect of high-stakes testing according to B. Jones (2007) is that teachers found that test can have a negative impact on students' in-depth

learning and understanding. Teachers believe that because tests cover a wide range of topics in curriculum areas tested, they might be less likely to devote the time needed for in-depth exploration of a topic (p. 69). The problem here is that researchers such as the National Research Council (2000) found that learning with understanding (as opposed to rote memorization) takes time. This situation may be worsened in states that administer their high-stakes tests in February and March, shortly before the end of a school year (p. 70).

B. Jones (2007) found evidence that high-stakes testing can create a stressful environment for students. Some of the reported effects are worry, anxiety, nervousness, sweating, crying, stomach aches, irritability, vomiting, headaches and loss of sleep (p. 73). Very possibly, the most serious effect of high- stakes tests are that students lose their motivation to stay in school and will drop out. While students drop out of high school "for various reasons, high school graduation exams appear to increase the number of student retentions which, in turn, has increased the dropout rate" (p. 73). (Note: in this context, retention is the opposite of promotion.) Moreover, B. Jones found that:

> Testing has increased retention rates by requiring students to pass tests to be promoted to the next grade and pressuring some teachers to retain students who they feel will pass the tests in the following year without being retained (Amrein & Berliner, 2003; McNeil, 2000)" (Jones, 2008, p. 73).

B. Jones also cites Goldsmith & Wang, 1999 in stating that "retaining more students has likely increased dropout rates because student who are retained are significantly more likely to drop out of school" (p. 73).

Examples of negative or unintended impacts of high-stakes testing for students are not graduating from high school or a school being labeled as a failing school (Perna & Thomas, 2009). Schools respond to these threats “rationally” by emphasizing high school exams over other priorities which include college enrollment. Expanding on this issue, they found other research (as cited by Muller & Schiller, 2000) that testing policies with strong consequences for students encourage schools to focus on ensuring that students attain only the skills necessary to graduate from high school (p. 473).

Alignment in Secondary and Postsecondary Education

Kirst and Bracco (2004), report that traditionally, it has been the responsibility of postsecondary education institutions to define standards for college-level course work and remedial courses. State and local K-12 authorities simultaneously define curricula for non-Advanced Placement (AP) college prep courses for high schools. This results in inconsistent standards among these educational entities. "High school teachers and college professors often differ in their views of what students should know in order to go on to postsecondary education" (p. 15). Due to this factor, students get several mixed signals about the relationship between high school course work, standards, and college

readiness. Additionally, they receive the wrong impression that meeting high school academic requirements does not mean that they are college ready. An extensive search of the literature was conducted to find evidence of curricular alignment between secondary schools (11th and 12th grade) and postsecondary institutions; no literature was found.

In their 1999 report, the Education Trust disclosed that very often, high school teachers and students are unaware of the differences between postsecondary education demands with regard to high school courses and test content as opposed to what the state requires for a high school diploma. More often than not, state high school graduation exams are not aligned with the test used for college admission or for placement into college-level courses. In general, "high school tests are much less difficult than placement exams because the test content often does not exceed the ninth- or tenth-grade level" (p. 16). The Education Trust report results also found that in most states, students who master the content to pass the state K-12 tests can fall short on college examinations and end up spending valuable time in college learning what they could have and should have learned in high school.

Kirst and Bracco (2004), hypothesized that the lack of alignment between high school exit exams, college admission exams, and college placement exams can present problems for students. Students are less likely to be prepared if they receive confusing or conflicting signals, or no signals at all about what is required for college admission and placement. While the study conducted by Kirst and

Bracco did not address whether or not school policies caused students to be underprepared, they commissioned RAND to conduct content analyses of high school exit and college entrance texts in their case study. The study found significant differences between assessments used in postsecondary education compared to secondary school systems. They concluded that these differences can send mixed signals to students about college standards and preparation.

The Brown and Niemi Study

To further address the lack of alignment between secondary and postsecondary education, Brown and Niemi (2007) conducted a study to examine what they call the "disjuncture between secondary and community college education." The purpose of the Brown & Niemi study was to investigate the degree of alignment between the content of several "placement examinations used in community colleges and key California Standards Tests (CSTs) used in California high schools" (p. 10).

Brown and Niemi (2007) acknowledged that much has been written about the poor transition of students between secondary and postsecondary educational systems in the United States; they also observed that the disconnect between high school and college is also reflected in academic subject matter contact (p. 9). In fact, Brown and Niemi (2007) cited several sources investigating alignment. They found, however, that no studies addressed the “preparation needed for success in entry-level courses at open access

community colleges" (p. 9). They also found that no studies included high school exams from California. To gain insight into why such large numbers of California high school graduates need remediation in math and reading after they enroll in California community colleges, Brown and Niemi conducted a study of alignment between the content of state mandated high school examinations and the content of placement tests used by the community colleges (pp. 9-10).

Brown and Niemi (2007) analyzed placement assessments to determine alignment with specific content that students are expected to have already mastered in high school. Specifically, their study sought to determine the degree of content alignment between the "de facto standards" needed for community college preparedness (as measured by many placement exams in use across the state) and the standards measured by the augmented CSTs in math and ELA in high school (p. 10). Brown and Niemi noted that other factors such as establishing proficiency standards, communication between segments, inconsistency across campuses with respect to testing practices, the multiple pathways students undertake as they progress through community colleges, English proficiency development, and self-monitoring of assessments systems, while important, were not the focus of their investigation (p. 10) .

Brown and Niemi (2007) concluded that the augmented CSTs in ELA demonstrated sufficient alignment with the objectives measured by the most placement exams in use on California community college campuses. They found that the ELA test showed strong alignment in all four areas across the groupings

"categorical concurrence, depth of knowledge, range of knowledge and balance of representation" (p. 24). The Brown and Niemi (2007) study also found that the math tests showed adequate alignment values only with respect to depth of knowledge consistency and balance of representation; the math tests fell short in many content areas in terms of categorical concurrence and range of knowledge alignment. The study results noted that some mathematics topics covered in placement exams were not addressed by the augmented CST tests and were inclined to be either lower-level mathematics concepts such as whole numbers or fractions, or they involved topics beyond the level of Algebra II such as trigonometry. This result may have been caused by the greater and wider variety of placement exams evaluated in mathematics relative to ELA (p. 25).

It should be noted that the Brown and Niemi (2007) study analyzed augmented versions of the Algebra II and Summative High School Math assessments (p. 25). These tests are part of the STAR system for California's secondary education, but they are not the only tests for 11th grade students in mathematics. They are end-of-the-course exams that are taken only by students taking specific courses, unlike the Grade 11 CST in ELA that is given to all students in the 11th grade. The CSTs will be discussed later in this chapter.

The aforementioned math tests are taken by only a moderate number of students. Very few students take the Summative High School Math Assessments and/or Algebra II tests; those who take this exam do not perform well. While the test content of the two tests align modestly to some community

college topics tested for within community college placement exams, of these, only a few students master the material. It is therefore not surprising that a large portion of students are assigned to remedial math courses as a result of their exam.

Academics who have researched students' success in secondary and postsecondary math agree that Algebra is the "gatekeeper" to postsecondary degrees and good-paying jobs. In her dissertation, A. Jones (2007) cites Lutzer, Maxwell, & Rodi, (2002) and Stein (2004) in stating that postsecondary institutions expect students to have completed at least two years of algebra in high school, and nearly every postsecondary program of study requires students to complete a general education mathematics course that for the majority of students is either college algebra or a course that requires algebra as pre-requisite knowledge.

The Brown and Niemi (2007) study found that alignment between high school assessments and college placement exams was good in ELA. In spite of this result, there were still many students who required remediation. While alignment between the high school ELA test taken in the 11th grade and the content of community college placement exams appeared strong, high school students' preparation for mastering ELA content was seriously lacking. Brown and Niemi found that:

> Only 36% of students taking the GRADE 11 ELA test in 2006 reached the level of Proficient or better, with another 24% scoring at the Basic level,

> indicating about two-thirds of the students did not master the material sufficiently to be deemed proficient and roughly 40% of students score at a level below Basic achievement (p. 27).

They add that while alignment between high school tests and community college placement exams may be necessary, they are insufficient to adequately prepare students for the transition from secondary to postsecondary education.

Martone and Sireci (2009) took a different approach to the study of alignment. These researchers conducted an evaluation of alignment between curriculum, assessment and instruction at the K-12 level and found that there can be difficulties in alignment research. They first found that a state's content standards cannot usually be accessed through large-scale standardized assessments. Martone and Sireci also found that standards are sometimes written at multiple levels and tests may be written to align with standards at the highest levels. The alignment study, however, may use a more detailed level for the standard comparison. They also pointed out that standards may be written to different levels of specificity and may be written so generally that many different types of content are incorporated so that determining a match is difficult (p. 1355).

In the early stages of the Martone and Sireci (2009) study, the problems associated with alignment and the Content Standards for California were the main focus. As the research continued, the CCSS for California began to

emerge. Consequently, the content standards were eliminated from this study and CCSS became the new emphasis.

Martone and Sireci (2009) also found inconsistent interpretation of standards across "subject matter experts," individuals involved in the study for the purpose of rating test items for congruence to test specifications or their relevance to the intended domain (p. 1336). They found certain phrases difficult to interpret and therefore difficult to assess. Another closely related problem was that items may measure multiple content standards, resulting in errors among expert judgments. Lastly, perfect alignment can never be found because "some standards are difficult to assess and may be repeated within a level; or tests may be designed to assess multiple grade levels" (p.1355). Martone and Sireci concluded that "Alignment is a means for understanding the degree to which different components of an educational system work together to support a common goal" (p. 1355).

From the early 1990s to 2007, there has been a significant increase in the initiatives and research intended to close the gap between high school and college. The activities include studies of ways to:

- Identify entry-level college knowledge and skills;
- Reorganize high schools to better prepare students to succeed in college;
- Better integrate grades 9-14;
- Show how colleges can support improved alignment with high schools (Conley, 2007).

In the mid-1990s, state content standards and assessments emerged for a brief period that used proficiencies developed by college faculty for the purpose of determining who would be eligible for college. Conley (2007) reported that higher education systems in Oregon and the City University of New York developed performance statements specifying the knowledge and skills incoming freshmen needed if they were to succeed in entry-level courses.

What was problematic is that only a few of these statements had a substantive effect on state standards-based high school reforms. Also, the states did not adapt their secondary-level testing programs to connect with college-readiness, nor did they revise high school content standards to align with postsecondary expectations. Nearly all of the mid-1990 reforms focused on knowledge and skills benchmarked to expectations and exams at an eighth to tenth-grade level. Two states, however, did pilot programs referred to as competency-based or proficiency-based admission.

According to Conley (2007), The University of Wisconsin piloted a competency-based program. The data collected indicated that students admitted on the basis of competency rather than grades did slightly better in their first-year courses and were most likely to stay in college (pp. 93-94).

The second of the two higher education systems to experiment with higher education reforms was the Oregon University System (OSU). In 1993, a comprehensive process was developed by OUS to admit students to college based on the students' demonstrated proficiency in key areas identified as being

related to college success that included measured required by the state high school assessment system. This model was recognized as the Proficiency-Based Admission Standards System (PASS). According to this model, "high school students could use results from state standards-based exams and national college entrance tests in addition to collections of classroom-based work to demonstrate requisite knowledge and skills" (Conley, 2007). The research found that the measures used to gauge proficiency did predict success in freshman college courses as well as or better than similar and more traditional measures (p. 94). The OUS's PASS program was piloted in 52 high schools that enrolled more than half of the students in Oregon. Full implementation of PASS, however, was tied to the state's twelfth-grade Certificate of Advanced Mastery which was never fully implemented. The result was that PASS an option for high schools students' admission to Oregon public universities, not a requirement. Those students who chose to participate in the PASS program had the option of including PASS assessment results on their transcript. The PASS program was also utilized as the common reference point in the school or district for college readiness and for a program of study that prepares their students for college (p. 94).

The ADP is used for preparation at the university level and for readiness at the community college. The ADP standards are used by many states as a frame of reference for analyzing and revising state high school standards and exams.

At this juncture, very few states had designed the content standards that challenge all students to reach college readiness. Conley (2007) asserts that those students who aspire to be the first in their families to attend college put their confidence in the state to have policies and programs in place to ensure their readiness for college. College-readiness can also be defined as an approved sequence of courses: a methodology proved to be ineffective for first-generation college students because of the huge variation in the rigor of courses between and within high schools. The lowest expectations of students tend to be among schools serving the highest concentration of poor and minority students. These schools have the fewest college prep courses and ensure that the students are most likely to start their college experience in remedial courses when their enter college. Moreover, state standards and exams have done little to help students gauge their readiness for college.

The result is that those who most depend on state tests for information on college-readiness receive little guidance that is useful. Earning a score of "proficient" or "advanced" on a state test does not reflect that a student is actually prepared for college. Even more harmful to the student is that the test gives the mistaken impression that students are doing well regardless of their actual level of preparation which leads some students to take the option of taking a reduced academic load in their senior year of high school. While some states try to correct this issue by requiring that all students take a national exam such as the ACT or the SAT, these exams may be poorly aligned with state standards and

lack a real connection to scores on state exams. Students are then left with conflicting interpretations of their level of academic preparation (pp. 94-95).

California High School Assessments

California STAR Program

The California STAR Program measures the performance of the California education system and its students. The STAR measures students' achievements in mathematics, ELA, science and history-social science.

The STAR tests are used to identify strengths and weaknesses of students to help them improve their learning. Academic abilities, grade-level requirements, and the results of other students in that grade can be compared by parents and students. The goal of STAR Program tests is to have all students perform at the proficient or advanced level. California public school students in grades two through eleven take a STAR test developed by grade and subject. A parent or guardian may submit a request to exempt their child from taking the test. Students who take the test include students with disabilities and students whose first language is not English. By state law, all Spanish-speaking English learners are required to take the Standards-based Tests in Spanish (STS).

The STAR Program includes four tests, and students take the test that is aligned with their age and individual needs:

- California Standards Tests (CSTs) – for California public schools which are aligned to the state content standards. All students in grades two through 11 take the CSTs for the subjects listed for their grade;

- California Modified Assessment (CMS) -- a grade-level assessment for students with disabilities in California public schools who meet the state criteria;

- California Alternate Performance Assessment (CAPA) -- California public school students who have significant cognitive disabilities and cannot take the CSTs even with accommodations or modifications and;

Standards-based Tests in Spanish (STS) – developed for Spanish-speaking English language learners in California public schools. These tests measure the achievement of state content standards in reading/language arts and mathematics in Spanish. Retrieved from http://starsamplequestions.org/about.html.

Table 3 represents the subjects tested for each grade

Table 3. *Subjects Tested Per Grade Level*.

Grade	Math	English–Language Arts	Science	History–Social Science
2	●	●		
3	●	●		
4	●	●		
5	●	●	●	
6	●	●		
7	●	●		
8	●	●	●	●
9	●	●	●	●
10	●	●	●	●
11	●	●	●	●

Note. California Department of Education STAR Test (2009)

The California Board of Education (CBE) has determined levels of performance for the STAR tests. These are:

- Advanced – represents a superior performance. Students in this category demonstrate a comprehensive and complex understanding of the knowledge and skills measured by this assessment, at this grade, in this content area;
- Proficient – represents a solid performance. Students demonstrate a competent and adequate understanding of the knowledge and skills measured by this assessment, at this grade, in this content area;
- Basic – represents a limited performance. Students demonstrate a partial and rudimentary understanding of the knowledge and skills measured by this assessment, at this grade, in this content area and;
- Far Below/Below Basic – represents a serious lack of performance. Students demonstrate little or flawed understanding of the knowledge and skills measured by this assessment, at this grade, in this content area. Retrieved from http://starsamplequestions.org/about.html.

California High School Exit Exam

The California High School Exit Exam (CAHSEE) is an assessment of 10th graders for the purpose of identifying those students who are not developing the skills considered to be essential for life once they have completed high school.

This test is given to all high school students except those eligible students with disabilities. Students must satisfy CAHSEE requirements in addition to state and local requirements to receive a high school diploma.

The State Superintendent of Public Instruction appointed a High School Exit Examination Standards Panel charged with developing recommendations for a high school exit examination. After which, the recommendations for CAHSEE were approved by the State Board of Education (SBE).

The CAHSEE was first offered on a voluntary basis in the spring of 2001 to ninth graders who would be from the class of 2004. Later in that year, the CAHSEE would only be required during the 10th grade. The class of 2006 was the first to take the CAHSEE as 10th graders. If 10th graders pass the test, then they are next required to complete their other courses to graduate from high school. Those students who do not pass the CAHSEE the first time will be given several opportunities throughout the academic year to pass the assessment. In July 2003, the SBE took the action to make CAHSEE a requirement to receive a diploma. There are two parts to CAHSEE:

- The English language-arts (ELA) -- addresses the state content standards through the tenth grade. The reading portion of the ELA includes vocabulary, decoding, comprehension and analysis of information and literary texts. The writing portion covers writing strategies, applications, and the conventions of English which entails grammar, spelling and punctuation;

- Mathematics – addresses state standards in grades six and seven and Algebra I. The exam includes statistics, data analysis and probability, number sense, measurement and geometry, mathematical reasoning, and algebra. Students are also asked to demonstrate a strong foundation in computation and arithmetic, including working with decimals, fractions, and percents (SBE, 2013).

The spring administration of CAHSEE is used in calculating the Academic Performance Index for state accountability purposes and Adequate Yearly Progress to meet the federal requirements of No Child Left Behind.

Early Assessment Program (EAP)

The EAP is a collaboration between the CSU, the CDE, and the SBE. The goal of this partnership is to insure that high school students on a path to go to college upon graduation have the skills necessary and expected by the CSU to successfully complete college level English and mathematics.

The EAP results allow students, teachers, parents and the CSU to ascertain how well 11th grade students are prepared for college-level work. It also gives these students an opportunity to make improvements on their skills before they enroll in college.

There are three components of the EAP. These are early testing, the opportunity for additional preparation during the 12th grade, and professional development activities for high school English mathematics.

The EAP consists of augmentations of the California Standards Tests (CST) for 11th grade English and mathematics. The CSTs are a component of public school testing and the accountability systems in California and are required by all students. These tests were developed by CSU and K-12 faculty to ensure that both California high school standards and the CSU placement standards were covered. Included is a writing sample to the English CST added by the faculty along with a few additional items. The scores are computed using a special formula composed of a subset of relevant CST items and the CSU augmented items. Specific levels of these scores will indicate if the CSU standards are met.

After the 11th graders take the test, they will be notified of the results, indicating that they met the CSU expectations or that they need additional preparation to be successful in college-level academics. Meeting the CSU expectations exempts them from the English Placement Test (EPT) and the Entry-Level Mathematics (ELM) test. For those students who need additional preparation, they will have the entire year to attain the skills they will need for college. Students who need improvements in their expository reading and writing can take a course specifically designed for 12th graders. This course was developed jointly by high school teachers and university professors. For improvements in math, seniors will have access to online courses and other individualized online interactive programs.

ACCUPLACER®: On-line Placement Tool

At all California community colleges, each student who matriculates is required to take a placement test. The placement test determines what level English and math classes a student will start in. Students are not required to take English and math as their first classes. Taking English and/or math, however, is usually strongly advised by community college counselors because they serve as foundation classes for the rest of the students' college career.

ACCUPLACER® is an on-line placement system used by over 1000 higher education institutions in the United States. ACCUPLACER® is a product of College Board. It consists of nine multiple-choice tests that measure skills in reading, listening, and mathematics; two essay tests that measure writing skills; plus several supplemental assessments. Like other computer-based tests, ACCUPLACER® offers reduced testing time, enhanced security features, immediate feedback, and flexible testing sessions, especially since it is Web based. It is also a "computer-adaptive" testing system and therefore capable of assessing a wide range of student abilities since the difficulty of the test automatically adjusts to the skills of the individual examinee. Given these positive attributes, the ACCUPLACER® Online testing program seems to be an ideal placement tool, especially for developmental programs; yet, very little is known about its predictive validity (James, 2006). In spite of this fact, the test is used thousands of times nearly every day through the country.

Hughes and Scott state that placement exams are widely used in community colleges. In fact, their article cited the findings of Parsad, Lewis and Green that 92% of two year institutions use placement exam scores for placement in to remedial courses. Among all assessments, they found that two are used more often than any others. Sixty-two percent of two-year colleges use ACCUPLACER®; 42% use COMPASS®. ACCUPLACER® (the placement test that will be the center of this study) is used as an assessment instrument for placement into English and math classes (Levin and Calcagno, 2008). Placement into an English class below college level is indicative of a student needing to develop writing fundamentals.

English Placement Test (EPT)

The English Placement Test (EPT) assesses the reading and writing skills level of all new entering undergraduate students for the purpose of placing them in the appropriate English course. Those incoming undergraduates who do not possess college-level skills are directed to courses or programs designed to help them attain the needed skills. This typically means that the student will be assigned to a remedial English course or be denied admission into the university with a recommendation to complete lower division college courses at a community college.

New undergraduates are required to take the EPT unless they have been granted an exemption. Exemptions are determined by what percentile the test taker falls within based on those who took the test when he/she tested.

Undergraduates must take the EPT and provide their scores to the university prior to the first semester of enrollment.

The EPT consists of three sections: an essay, reading skills, and composing skills components. Typically, the EPT is given in conjunction with the Entry Level Mathematics test.

Entry Level Mathematics (ELM)

As with the EPT, all undergraduates are required to take the Entry Level Mathematics (ELM) test except for those determined to be exempt based on SAT and/or ACT test scores.

The ELM is designed to assess the mathematics skill levels of entering CSU undergraduates covered in three years of rigorous college preparatory mathematics courses in high school. Those who do not demonstrate college-level skills are directed to courses or programs designed to help them attain the necessary skills. This typically means that the student will be assigned to a remedial math course or be denied admission into the university with a recommendation to complete lower division college courses at a community college. The ELM is usually given in conjunction with the EPT.

The test content of the ELM emphasizes working with numbers and data, the connections between algebra and geometry, and problem solving. This test provides the major geometric formulae for reference because its purpose is to assess understanding of mathematical concepts and problem solving skills rather than recall of facts and equations.

State Mandated Testing

Perna and Thomas (2009) conducted a study that explored the ways in which state high school testing policies shape college opportunity among students attending 15 high schools in five states. They used multiple descriptive case studies to look at how testing policies influence key predictors of college enrollment and the capacity of a high school's capability to promote college enrollment. The findings included the following:

1. Students do not enroll in college because they do not pass the high school exit exam and receive a high school diploma (p. 463);
2. Most participants believe that exit exams reduce the academic rigor of curricular offerings and define adequate academic preparation as meeting the minimum standards established by the exam (p. 464);
3. Some of the participants believe that exit exams have benefits for students' academic preparation. One teacher in the study believed that the requirement to take the exit exam increased the school's emphasis on academics in the mind of the students. Others believe that taking remedial students out of their regular classes allow teachers to increase the academic rigor for these students (p. 464);
4. A common view exists that passing the exit exam does not ensure adequate academic preparation for college. Some of the participants also note that the content of exit exams is not aligned with college entrance exams. Additionally, many students and teachers believe that exit exams

have reduced the academic rigor of the school's curricular offerings (p. 465). A similar finding was observed in the 2004 study by Achieve, Inc. (2008). They found that among the 50 U.S. states, only four hold high schools accountable for students being college and career ready; only seven were in the process (p 3);

5. Perna and Thomas (2009), found that regardless of the alignment between high school exit exams and college academic requirements, low scores on exit exams are a signal that the school provides inadequate academic preparation for high school graduation and for college admission (p. 467).

Remediation for High School Students before Entering Postsecondary Education

In her dissertation, DeHart (2007) found a disconnect between the levels of knowledge and skill required to earn a high school diploma in the U.S. and those needed for success in college. She found what many community colleges and university outreach administrators already know; that high school students are unaware of the importance of selecting college preparatory courses. This problem exists for a number of reasons:

- Inability of counselors to handle their workload of 300 to 400 students per counselor;

- Lack of college prep courses for the number of students who *may* want to attend college;
- Tracking of students into vocational careers;
- Fewer on-campus presentations by university and community college outreach programs;
- Apathy among counselors.

College preparatory math courses (not English) was the focus of DeHart's study. Findings of DeHart's study were that 91% of 162 students in the study needed remediation because they had not acquired the mathematical knowledge and skills necessary for success while in high school. It was DeHart's opinion that a rigorous college preparatory curriculum should be encouraged, and that the state high school proficiency assessments are aligned with college placement requirements.

Recommendations for Interventions

Levin and Calcagno (2008) examined remediation for students entering community college and what would be the most successful interventions. They found Levin and Koski's (1998) recommendations for successful interventions for underprepared students in higher education to be the most effective:

- *motivation:* building on the interests and goals of the students and providing institutional credit toward degrees or certificates;

- *substance:* building skills within a substantive or real-world context as opposed to using a more abstract approach;
- *inquiry:* developing students' inquiry and research skills to help them investigate other subjects and areas about which they might be curious;
- *independence:* encouraging students to do independent meandering within the course structure so that they will develop their own ideas, applications, and understandings;
- *multiple approaches:* using collaboration, and teamwork, technology, tutoring, and independent investigation as suited to student needs;
- *high standards:* setting high standards and expectations that all students will meet if they exert adequate effort and if they are given appropriate resources to support their learning;
- *problem solving:* viewing learning less as an encyclopedic endeavor and more as a way of determining what needs to be learned and how to develop a strategy that will succeed;
- *connectiveness:* emphasizing the links among different subjects and experiences, and showing how they can contribute to learning, rather than seeing each subject and learning experience as isolated and independent;
- *supportive context:* recognizing that to a large degree learning is a social activity that thrives on healthy social interaction, encouragement, and support (p. 186).

Barriers to Success in Postsecondary Education

A number of studies have been conducted that contribute to the literature addressing student success among ethnic groups in high school settings. Qian and Blair (1999) conducted a study that measured the racial/ethnic differences in educational aspirations of high school seniors who are white, African American, Hispanic and Asian American. The foundation of their study was drawn from the theories of Coleman (1988) and Ogbu (1983).

According to Qian and Blair (1999), Coleman asserted that it is the "strength of the relationship between parents and children" or "social capital" that is critical in shaping the human capital of young people which determines whether they can take advantage of whatever financial and human capital their parents have (p. 606). This strength can be measured by two means. The first is the physical presence of adults in the family. In other words, is the family a single parent family, or do both parents work outside the home? The second is the degree of attention given to child/children. High school dropout rates are higher for children of single parent households than for two-parent families. Qian and Blair reported that single parents tend to have lower educational expectations for their children. They also monitor schoolwork less and have less time for the supervision of social activities than two-parent families. Children from large families receive less attention from their parents resulting in lower educational performance than children from small families.

In addition to the social capital created by parents and families, the social capital created by those outside the family is important in the creation of human capital of teenagers. Coleman (1988) refered to human capital as that created by changes in persons that bring about skills and capabilities that make them able to act in new ways (p. 100). He saw institutional support from neighborhoods, schools, peers, and teachers as valuable resources for social capital. Coleman “found that private schools mostly funded by religious organizations often provide more social capital for their students than do public schools” (Qian & Blair, 1999).

Qian and Blair (1999) offer the perspective of Ogbu (1983) to elucidate the differences among racial/ethnic minorities. Explaining from an ecological approach, Ogbu classified racial/ethnic minorities into two groups: immigrant minorities and involuntary minorities. Asian Americans are classified as the immigrant minorities because they came to America voluntarily. African Americans are involuntary minorities (nonimmigrant) because their ancestors were “conquered, colonized, or enslaved. Unlike immigrant minorities, the nonimmigrants have been made a part of the U.S. society "against their will” (Ogbu, 1998).

According to Qian and Blair (1999), Ogbu recognizes that both Asian Americans and African Americans experience discrimination; however, Asian Americans are optimistic while African Americans are pessimistic about their futures. Ogbu asserts that Asian Americans compare their current conditions

with their homeland peers where they are better off. African Americans compare their conditions with whites – the dominant group -- in which case they are worse off (p. 608).

Asian Americans and African Americans view educational attainment and job opportunity differently (Qian & Blair, 1999). For Asian Americans, the only way to move up the socioeconomic ladder in the United States is through education. They feel more strongly than other racial/ethnic minorities that lack of education results in negative consequences. For first or second generation Asian Americans, this opinion may be stronger than for later generations.

Contrary to Asian American beliefs, African American students, according to Ogbu (1983), reject the cultural norms and goals of accepting schools' criteria of success and culturally sanction behaviors such as survival strategies that would bring success. This contributes to school failure, disillusionment, and ultimate conflict with schools (p. 179). Additionally, according to Gibson (1991), African Americans may have a difficult time "respecting their teachers and learning from them" (p. 366). Those who accept school authority "may be accused of obeying white orders and working for whites rather than themselves, just as in the days of slavery" (p. 366).

Hispanic groups such as Mexican Americans who came to the United States many generations ago are also considered involuntary minorities (Qian & Blair, 1999). They share experiences similar to those of African Americans except that the majority are first- or second-generation Americans (p. 608).

Gibson (1991) found that while Hispanic natives tend to be more similar to African Americans than Asian Americans in acceptance of mainstream culture, “they possess parental social capital because with their bilingual skills, they have acquired sufficient mainstream cultural capital to share in the resources enjoyed by dominant group members but also have retained sufficient support from their own culture” (Qian and Blair, p. 608).

Qian and Blair (1999) conducted a study to determine (in part) how human, financial, and social capital affect educational aspirations differently across racial/ethnic groups. For the purpose of this topic area, social capital will be the focus of this discussion. For their study, the Qian and Blair applied data taken from the 1992 National Education Longitudinal Study (NELS) which was a follow-up to the original study began in 1988. Initially, the sampling of students in the NELS study was of eighth graders. They limited their sample to twelfth grade students because the students’ educational aspirations were likely to have been more robust among seniors than eighth grade students. Qian and Blair noted that this limitation may have increased educational aspirations for Hispanics and African Americans because of their higher dropout rates than whites according to the U.S. Bureau of Census for 1998 (p. 610). These researchers also noted that the NELS study oversampled Hispanics and Asian Americans which made the survey useful for studying variations among racial/ethnic groups. Whites, African Americans, Hispanics and Asian Americans were included in this study. Native

Americans were excluded from the study because the numbers were so small, the sample size was insufficient to conduct the necessary analysis (p. 610).

Qian and Blair (1999) concurred with Ogbu (1991) that high educational aspirations may reflect only the tenuous justification for African American seniors because their aspirations are not matched with effort. Qian and Blair support the argument of Ainsworth-Darnell and Downey (1998) that greater educational aspirations reflect positive attitudes among African Americans, but the lack of material conditions has caused the discrepancy between educational performance and aspirations. Therefore, they conclude that African American high school seniors included in their study exhibit high positive attitudes toward school because they are very different in their attitudes from those who dropped out of high school. Additionally, their study showed that African American high school seniors have the highest educational aspirations when social capital is taken into account. They concede, however, that further research may be needed to explore the reasons for high educational aspirations among African American high school seniors despite their relatively low educational performance.

Qian and Blair (1999) found that regardless of social capital, Asian Americans have higher educational aspirations. Historically, Asian Americans started in the United States at the bottom of the socioeconomic ladder. While they had practically "no opportunities for social mobility and little chance for employment in relatively well paid industrial jobs, Asian Americans developed an

ethnic economy that later promoted children's learning" (p. 621). Because Asian American parents viewed education as a means to run the ethnic economy more efficiently, they had the hope that their children would have higher educational attainment. For them, education was the only way to advance in American society.

Qian and Blair (1999) found that the experience of Hispanics was similar to that of African Americans. Social capital was found to make a significant impact among African Americans and Hispanics in the Qian and Blair study.

Another significant finding was that Hispanics in urban schools are more likely to have greater educational aspirations than their counterparts in other schools. Although speaking English as a native language does not affect educational aspirations, Hispanics living in urban areas are more likely to be immigrants who are bilingual than those living in other areas. Bilinguals may have advantages in acquiring the institutional support necessary for school success. Also, parental involvement in school activities had a considerable effect on the educational aspirations among African Americans and Hispanics. The parents of the students in the study, who encouraged their children to move ahead, gave the needed attention to their children despite the deficiency of human and financial capital (Qian and Blair, 1999).

High Stakes Testing and Extra-curricular Activities among Black and Latino Students

According to Knight and Marciano (2013) educators have begun to critique education policies to determine how factors such as race, class gender and disability/ability are impacting student achievement on high stakes testing. High stakes testing advocates argue that these accountability systems lead to more equitable school structures that support all students' cultural and academic identities regardless of race, class, disability/ability or English proficiency. In spite of their arguments, quantitative analyses on a large-scale conclude that these tests have a disproportionately negative impact on Black and Latino male students. Knight and Marciano's research found evidence that high stakes testing "decreases the likelihood that minority and poor students will graduate from high school, thereby limiting their access to a broad range of postsecondary education options" (p. 65).

They also found that extracurricular activities in high school (sports, performing-arts and student government) are structures within postsecondary institutions that have a positive impact and that affirm students' cultural and academic identities, engagement in schools, academic achievement, and educational aspirations and their future educational attainment (Knight and Marciano, 2013). They stress that because postsecondary institutions are increasingly selective and calling for prospective students to develop a talent and show depth of commitment to only a few activities, it is essential for Black and

Latina/o youth from underrepresented urban communities to be competitive college applicants.

Knight and Marciano (2013) conducted a qualitative study of immigrant and nonimmigrant Black males and Latinos. These seven young men referred to as "(non-) successful negotiators" did not pass the state exams required for high school graduation. The non-successful negotiators were defined in the context of school policies and practices that did not adequately support their academic and cultural identities (in part) in the following manner:

- Insufficient preparation for success on the state exams, leading to the placement of youth in a systematic "re-tracking structure";
- Non-involvement in school-sponsored activities.

Of the four Black males, two were second-generation Caribbean immigrants; the other two Black males were from families who have lived in the United States for more than three generations. Three of the four Black males were "learning disabled" according to the school's classification. This classification intersects with their ethnicity and generational status. The three Latino males in the study came from first-generation immigrant families. All of the non-successful Black and Latino males were in the "regular" (non-honors) tracks within the school. While all seven were involved in community activities, only a few were involved in an extra-curricular activity that was school-sponsored. Knight and Marciano found that the males in this study did not

become institutional beneficiaries of a school-wide culture that fostered culturally relevant policies and practices (pp. 74-75).

Summary

The articulation of high school students to two-year and four-year institutions has been an ongoing concern of secondary and postsecondary institutional systems. What is troubling is that high school students entering colleges and universities are placing into remediation classes. The CSU system reported that one-third of its first-time freshmen placed into a remedial English course. Community colleges have responded to the increasing numbers of students needing remediation in English and math by increasing the number of remedial English and math course offerings. In the meantime, billions of dollars are being spent in both systems to meet the needs of students requiring remediation.

The literature revealed that in California, the Content Standards on which K-12 curriculum was based did not provide students with the knowledge necessary for successful completion of college-level English and math courses. Therefore, in 2010, the California SBE adopted the Common Core State Standards for California public schools which was scheduled for implementation in 2012. Those students entering four-year universities whose placement scores require them to start college in a remedial course are given up to one year to complete the course(s). If unsuccessful, they are academically disqualified and

typically referred to a community college to complete their lower division course requirements before transferring back to a baccalaureate-issuing institution.

Research findings determined that high school assessments were not aligned will college placement exams. In fact, Tell and Cohen (2007) found that few high school assessments measured the skills necessary for success in credit-bearing English courses in two and four year colleges. To provide high school students with the goals necessary for college and career readiness, benchmarks for English were created by the ADP. Later, a few states worked together to produce Academic Standards for College and Work in English and mathematics. These standards were adopted by state postsecondary institutions, state boards of education, or other appropriate governing bodies and verified or endorsed by employers and business communities. Unfortunately, postsecondary institutions and their leaders have been unable to sustain partnerships with secondary educators (pp. 84-85).

College-readiness can be summarized as the level of preparation a student needs to enroll and succeed without remediation in a postsecondary institution. Students who are adequately prepared for a literature course will be familiar with non-literary works, have the ability to write, understand and apply capitalization, punctuation and other basic rules of language to write clearly and convincingly, and have the ability to edit what they write.

Brown and Conley (2007) conducted a study of high school assessments and found that many states use high school exams to determine readiness for

postsecondary education. They found that state tests were not designed with postsecondary standards as a reference point. They also found that some reasonable degree of alignment exists between high school content and a minimum subset of college-readiness skills in most of the country. They did concede, however, that this alignment was not evenly distributed across standards. If states use their high school exams to determine college readiness or placement, one recommendation by Brown and Conley is that states should re-examine the content domains from which exam items are drawn.

Another study of assessments conducted by Brown and Niemi (2007) concluded that alignment between high school assessments and college placement exams was good in ELA. They found, however, that there were still many students who required remediation.

CHAPTER THREE

METHODOLOGY

Introduction

This study addresses articulation between high school and college and attempts to provide clarity with regard to the lack of "efficient and effective movement of students" from secondary educational institutions to postsecondary institutions while assuring continued "advancement in learning" (Ernst, 1978, p. 32). According to Brown and Niemi (2007), "many students entering community college campuses are not prepared for college-level coursework" (p. 2). As stated in Chapter I, a "regular" high school English class is defined by Planty et al. (2007) as "at grade level." College readiness implies that a high school graduate has the knowledge and skills in English necessary to qualify for and succeed in an entry-level transferable English course without the need for remediation (Achieve, 2013).

Also of concern is that there may be a disconnect between the ELA curriculum and the English composition curriculum of a community college course. It is well documented that over 70% of community college students place into a remedial English course. The students who were educated in California would have received their public school education under the English-Language Arts Content Standards for California Public Schools (1997). In a

letter written inside the Content Standards by the president of the SBE and the State Superintendent of Public Instruction (at the time of publication), they stated, "Our goal is to ensure that every student graduating from high school is prepared to transition successfully to postsecondary education and careers." While the intent of these standards was to ensure that students would be academically prepared for college, the high percentages of students statewide who tested into a remedial course suggest that the goal was left unmet.

The CCSS for ELA has yet to be tested for college-readiness in a community college. One place to begin would be to search for the existence of common language between ELA CCSS and English composition at a community college. For the purpose of this study, common language is defined as key words used across ELA CCSS and community college curricula.

Bueschel (2003) who conducted The Bridge Project study under the Stanford Institute for Higher Education Research reported that more students were leaving high school without having mastered the necessary skills to be successful at the college level. She added that their failures arise not from barriers inside colleges "especially community colleges" but from a failure of colleges to convey clear information about the preparation that high school students need in order to have a strong chance of finishing a degree.

Bragg, a professor of educational organization and leadership at the University of Illinois, agrees (Ciciora, 2010). She states that high schools need to work with community colleges to align their curriculum better and to reduce the

number of students who need to enroll in remedial courses. Bragg adds that the problem is system-wide and encompasses a fundamental lack of alignment between high schools and colleges. The problem is further worsened by the system's lack of expectations and support for students who are not seen as high achievers as they progress through K-12. The research literature has noted a myriad of assessment-curriculum studies; however, missing from the literature were studies addressing alignment between 11th and 12th grade ELA and college-level English content. Furthermore, little research has examined predictive factors associated with English level placement at the community college.

The purpose of this study is to determine if the grade earned in a regular 11th or 12th grade ELA class predicts placement level into an English class at a community college. The study also examines the similarity of language (common language) in 11th & 12th grade ELA and college-level English through an analysis of the Common Core State Standards, course content for college-level English, and remedial course content.

Statement of Research Questions

The research questions proposed for this study are:

1. To what extent is the last grade in high school ELA an accurate predictor for placement into a college-level English course?

2. To what extent are the last grade in high school ELA and time out of high school an accurate predictor for placement into a college-level English course?
3. To what extent is time out of high school an accurate predictor for placement into a college-level English course?
4. Does common language exist between 11th and 12th grade ELA curriculum and college-level English course content?

Setting of the Study

Data for this study were obtained from the Assessment Center at Desert View Community College (DVCC) (pseudonym), one of 112 community colleges in California. The college is located in a desert community in Southern California and is considered medium sized with a population of approximately 13,000 students. According to the Accountability Reporting for the Community Colleges (ARCC) report published by the California Community Colleges Chancellor's Office (CCCCO), the regional median household income for the population served by DVCC is $50,000. The students were not asked for family income information at the time of application to the college; however, it should be noted that in the 2010-2011 academic year 12,923 students were eligible for the Board of Governors Fee Waiver indicating that 99% of the student population at DVCC were considered low-income or economically disadvantaged.

The Data for the Study

The quantitative data for this study are archival. Archival data are information an organization maintains for long-term storage and record keeping purposes, but which is not immediately accessible to a user or organization (AmDoc, 2014). With permission from the college's Institutional Research department, the data were obtained in 2013 from the Assessment Center at DVCC. Each California community college has an assessment center where students take a test that will determine English and/or math placement when they begin a program of study. All data received for this study were obtained from the DVCC Assessment Center for academic year 2010-2011. The data contained no identifiers such as names or student identification numbers.

Students are required to take a placement test before they may enroll in an English or math course. The placement test administered by DVCC is ACCUPLACER®. A product of College Board, ACCUPLACER® is "a comprehensive battery of tests designed to provide information about students' English, reading, mathematics and computer skills" (ACCUPLACER®, 2011). ACCUPLACER's® primary function is "to assist with determining if students are prepared for a college-level course or if they would benefit from a developmental (remedial) course based on the combined reading comprehension scores and sentence skills scores" (ACCUPLACER®, 2011). Sixty-two percent of community colleges in the United States use ACCUPLACER® to determine placement level in English and math (Hughes and Scott-Clayton, 2008).

In the spring semester of 2011, two-hundred and seventy-four students took ACCUPLACER® however, data for three students were eliminated from the study because they did not take the English component of the test; they only took the math component. The total number of students in the sample: n = 271.

California community colleges pride themselves in serving what is considered to be the most diverse student population in the nation (CCC SSTF, 2012). The ethnicity of the students who took the placement test from which the data was gathered (2010-2011) were 106 (39%) white; 55 (20%) African American; 48 (18%) Mexican or Mexican American; 37 (14%) other Hispanic, Latino or Latin American; 14 (5%) multicultural and 9 (3%) "other." The remaining 2 (1%) chose not to answer.

Of the 271 students who took the English component of the ACCUPLACER® test (2011), their time out of high school was 120 (44%) for 5 or more years; 28 (10%) more than three years but less than five; 94 (35%) three years or less. Twenty-nine (11%) students were in the 11th grade and/or concurrently enrolled at the community college. Ninth, tenth and twelfth grade students were not permitted to take the test; 205 (76%) students earned a GED or high school diploma; 63 (23%) students earned neither a GED nor diploma and 3 (1%) chose not to answer. The gender make-up of the students were; 137 (51%) males and 134 (49%) females.

The CCC SSTF reported that 70% to 90% of first-time students who take an assessment test require remediation in English. DVCC is not immune to this

issue. In the 2011-2012 academic year, 85% of students who took the placement test failed the English portion. This means that only 15% of students who took the test placed into college-level English, a course required to earn an associate's degree and for transfer to a four-year college or university.

Re-Entry Students

This sampling of students is comprised of 11th grade students and traditional students who have matriculated through the K-12 system. Also included in the study are re-entry students. Much of the literature regarding college students has focused on traditional college students; students under the age of 24 and as stated above, who matriculated through the K-12 system. The re-entry or "nontraditional" college student according to the NCES (2007) has been the source of much discussion in recent research. In describing the nontraditional student they state:

> Most often age (especially being over the age of 24) has been the defining characteristic for this population. Age acts as a surrogate variable that captures a large, heterogeneous population of adult students who often have family and work responsibilities as well as other life circumstances that can interfere with successful completion of educational objectives. Other variables typically used to characterize nontraditional students are associated with their background (race and gender), residence (i.e., not

on campus), level of employment (especially working full time), and being enrolled in non-degree occupational programs (NCES, n.d.).

In a 2007 report by the National Postsecondary Education Cooperative (NPEC) for the NCES, the research focuses mostly on the experiences of "traditional" college students -- those who are 18-25 years of age from middle to high-income families (p. 2). These researchers acknowledge, however, that "less is known about nontraditional and low-income students, even though they account for the majority of currently enrolled undergraduates" (p. 3). The NPEC (2007) report credits Horn and Carroll (1996) for their definition of the nontraditional student as having at least one of the following seven characteristics: delayed enrollment into postsecondary education, attended part time, financially dependent, worked full time while enrolled, had dependents other than a spouse, was a single parent, or did not obtain a standard high school diploma (p. 5).

For purposes of this study, this researcher has selected the term "re-entry" and adopted the following modified definition from the Silicon Valley Community Foundation, a philanthropic organization that among its other interests provides scholarship opportunities for re-entry/nontraditional college students:

> Re-entry Students - students who been out of high school and/or college and have returned to school after a few years to pursue a college education. This can also include students who went straight to work after

graduating from high school and are now going to college for the first time. Re-entry students may also be seeking new job skills and training.

Research Design

This study is a mixed-methods study using correlational analysis and content analysis. A mixed-methods study was selected for two reasons. Analyzing scores from ACCUPLACER® placement test, ELA curriculum and college-level English course content could shed light on how student's grades might be predictive of placement in a community college English course. Analyzing the data could also infer whether or not students would be academically prepared to take on such a course. Neither ACCUPLACER® data nor English course documents alone would be enough to address issues concerning the disconnect between high school English and college English (Kirst & Venezia, (2001); Venezia, Kirst & Antonio, 2003; DeHart, 2007).

The ACCUPLACER® (2011) program manual states that the tests were designed as placement tests, however, they can also serve as a tool to evaluate the college readiness of students in high school in cases where higher education institutions or departments of education have established a college readiness definition (ACCUPLACER®, p. 6). In an examination of the DVCC website, a definition or matrix for college readiness was not found.

Quantitative Component

Part one of the study is a correlational analysis of data from 271 prospective community college students. The ACCUPLACER® placement test was selected as a means of collecting data that is quantitative and specifically designed for course placement of students. Some demographic variables could also be factors in predicting placement.

Correlation analyses were performed to examine the relationships between variables and regression analyses were performed as a way to predict placement in an English course. Both types of analyses were conducted using SPSS. Research questions 1-3 are addressed by this component of the study.

The variables explored in this study came from the data provided by the Assessment Center:

- Dependent variable: English placement;
- Independent variables: Last grade in high school English, time out of high school, gender, age, GED or diploma;
- Ethnicity is used only as a characteristic of the test population.

Since California community colleges do not require prospective students to submit transcripts, grades from students' last English class completed before taking the ACCUPLACER® test and receipt of GED or diploma were self-reported. All other students took the test after leaving high school and after

acceptance to the college as a condition of enrollment into courses at the college.

Qualitative Component

Part two of the study was conducted using content analysis. Content analysis is defined as, "a research technique for making replicable and valid inferences from data to their context" (Krippendorf, 1980, p. 21) and as "…a research method that uses a set of procedures to make valid inferences from text" (Weber, 1990, p. 9). For this analysis word searches for key ideas found in the CCSS 11th and 12th grade ELA for the purpose of making students college ready were counted across all curricula using the “Find” feature in Microsoft Word.

Quantitative assessment scores are important but do not provide enough information to infer alignment. Content analysis as the qualitative component was selected for that purpose. Content analysis will provide additional information about words used across curriculum that will infer the existence of common language between CCSS ELA and college-level English.

For this investigation, a content analysis was conducted using the following materials:

1. Common Core State Standards (CCSS) for California ELA, grades 11 and 12 in the areas of : a) reading, b) writing, and 3) language;
2. Course Outline for English Remedial 1;

3. Course Outline for College-level English.

English Remedial 1 places emphasis on expository writing which includes planning, organizing, composing short essays, reading a variety of college preparatory texts, and editing for punctuation, diction, usage and sentence structure. Successful completion of this course allows the student to advance to college-level English. College-level English addresses the principles and methods of research and expository writing. Analytical reading of source materials and writing expository essays are required. College-level English is required to earn an associate's degree and for transfer to a CSU or UC institution in California.

The course outlines for remedial English and college-Level English were downloaded from the college's CurricUNET website. CurricUNET is a curriculum management system used by colleges and universities and provides space where academic disciplines can store curriculum materials (Governet, 2013). Access to course outlines used by California community colleges are also available to the general public via a college's CurricUNET website.

As discussed in Chapter Two, remediation is widespread, especially among first-time undergraduates. Bautch (2013) reported that (nationwide) anywhere from 28 to 40 percent of students enroll in at least one remedial course. As previously stated, the CCC SSTF reported 70 to -90 percent of students in California community colleges enroll in a remedial course, suggesting that remediation problem is severe. Students enrolling in remedial courses are

significant among nontraditional adults. The non-traditional students have typically been out of school for long periods of time and may be returning to college to earn a degree or receive job training. To accomplish this goal, they may need to improve their math, reading, or writing skills.

At DVCC, there are four levels of English placement possible. Ranging from the highest level to lowest level, College-level (composition and reading), Remedial 1 (writing fundamentals), Remedial 2 (basic reading and writing) and Remedial 3 (basic skills) courses are included in the English course offerings. College-level English is required for the attainment of an associate's degree at a community college and for transfer into a four-year college or university.

Because Remedial 1 English is one level below College-level English, students who successfully complete high school ELA under the CCSS, would have the foundation to successfully complete a Remedial 1 English course. To be succinct, theoretically, Remedial English 1 would be equivalent to the CCSS ELA class for 11th and 12th grade. The CCSS are designed for students to be college and career ready. According to the CCSS Initiative "The standards are designed to ensure that students graduating from high school are prepared to enter credit bearing entry courses in two or four year college programs or enter the workforce" (NGA, 2013). For this reason, Remedial English and College-level English were selected for evaluation.

The CCSS were evaluated against the Remedial English 1 and College-level English course contents using coding as a means of finding the frequency

of words both courses have in common within curriculum and course content. Question four is addressed to the content analysis component of the study.

Human Coding

Neurendorf (2002) asserts that while the person who designs a content analysis must have some special knowledge and preparation, a central notion in the methodology of content analysis is that all people are potentially valid "human coders" or individuals who make judgments about variables as applied to each message unit. This method has been referred to by some experts as "human coding" (Krippendorff, 1980; Weber, 1990; & Neurendorf, 2002).

The Coding Process

Word searches for key ideas identified within the CCSS for ELA were performed from the following sections:

- Reading Standards for Information;
- Writing Standards;
- Language Standards;
- Language Progressive Skills;
- Range, Quality and Complexity of Student Reading.

Words searches for the course outlines for college-level English and remedial English were also included. The words were then counted in each document to

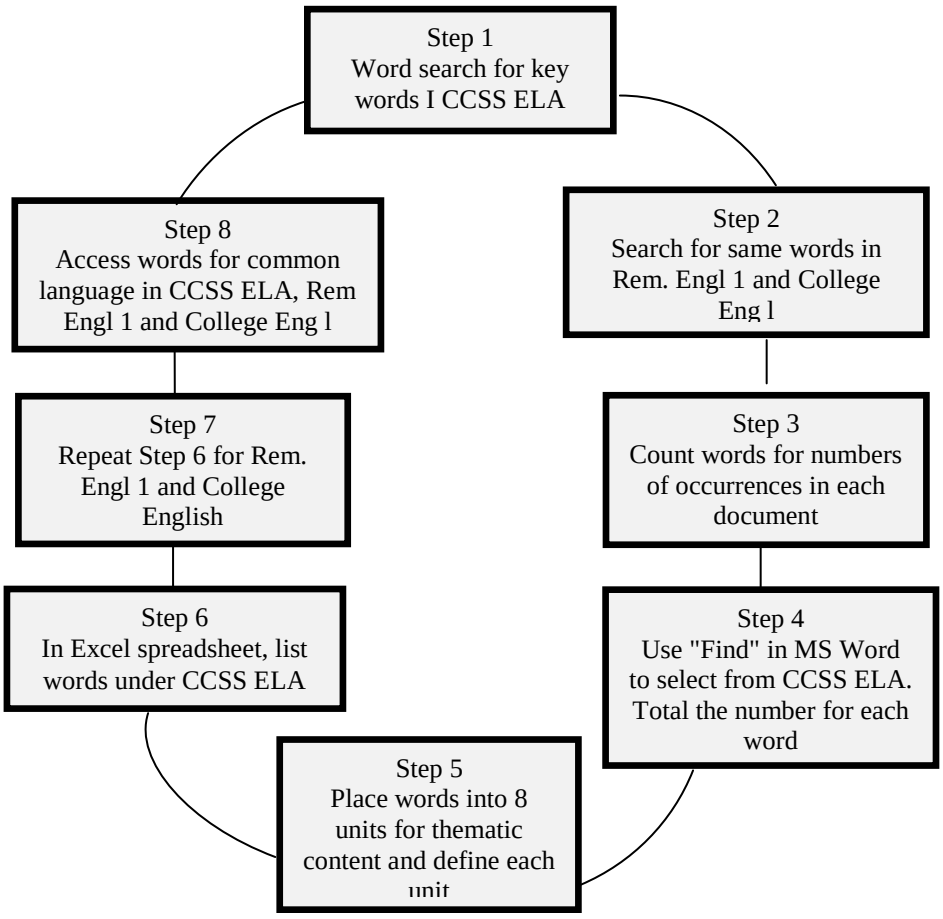
determine their numbers of occurrences/appearances per document. The highest word counts from the CCSS were used to perform the searches in the course content for college-level English and in the course content for the remedial English course content. Words found within the CCSS ELA section were selected and counted using the "Find" feature in Microsoft Word. The numbers of occurrences were then totaled for each word. Following the word counting, the words were placed into eight (8) units arranged by thematic content. Each unit was assigned a name relating to the theme and then, defined. Using an Excel spreadsheet, each individual word was listed under the category "CCSS 11th and 12th Grade Number of Occurrences". The words were then counted and documented under the CCSS column. The same process was followed for Remedial 1 English and college-level English as illustrated in Table 4.

Table 4. *Word Count for Common Core State Standards English Language Arts, Remedial English and College-Level English Course Contents*

Words	CCSS Grade 11 & 12 Number of Occurrences	Remedial English 1 Number of Occurrences	College Level Number of Occurrences	Total Count per Word
Analyze	21	3	4	28
Develop	14	3	3	20

Finally, words for 11th and 12th grade CCSS curriculum were assessed for common language with college-level English and Remedial English 1. Figure 1 illustrates the coding process used.

THE CODING PROCESS



Key		
1.	1. CCSS ELA	1. CCSS 11th 12th grade English language arts
2.	2. Rem. Engl. 1	2. Remedial English 1
3.	3. College Engl.	3. College-level English

Figure 1. Coding Process

An intensive search of the literature was conducted to find examples of the use of word occurrences for determining common language between the CCSS and the aforementioned English courses found in community colleges. Perhaps due to the recent establishment of the CCSS in 2010, no research studies relating the common core standards and word occurrences were found.

Positionality

This researcher is an African American woman and community college administrator with a background of working in the Student Affairs division of a four-year university and in the Student Services division at the two-year community college level. Within both levels of education, this researcher's experience includes work with university and community college students who primarily come from low-income households, are potentially first-generation college students, and are from underrepresented populations. This researcher has also worked with high school students in grades 9-12 who come from the same populations as the aforementioned college students. All professional work as a postsecondary administrator has been as a Project Director of U.S. Department of Education TRIO Program grants and Title V Hispanic Serving Institution grants, and the categorical programs Extended Opportunities

Programs and Services (EOPS) and Cooperative Agencies Resources for Education (CARE) Programs.

Summary

This study addresses the relationship between grades earned in high school ELA and how they predict placement in a community college English course. Also of concern is the lack of alignment between high school ELA curriculum and college-level English course content. To address these issues, a mixed-method study was conducted using correlational and qualitative analyses. Data collected were from 271 students at a California Community College who took the English component of the ACCUPLACER® placement test in the spring semester of the 2010-2011 academic year. For the quantitative component of the study, selected variables determined to be important in predicting college placement were analyzed using SPSS. For the qualitative component, a content analysis was conducted using word searches to analyze common language (words) across the 11th and 12th grade CCSS ELA, college-level English and Remedial 1 English course content. The results found in the study will be reported in Chapter Four.

CHAPTER FOUR

RESULTS

Introduction

The purpose of this study was to determine if the grades earned by 11th & 12th grade students are a predictor of placement into a college-level English class at a community college. Secondly, this study sought to determine if common language exists between 11th & 12th grade ELA based on the Common Core State Standards which were adopted in 2012 and college-level English. It should be noted that students who took the placement test took ELA under the 1997 Content Standards for California K-12 schools.

The subjects of the study are prospective students at Desert View Community College (DVCC) located in a relatively remote desert community of Southern California. The findings of the study will shed more light and assist in discovering solutions to the remediation issue so evident in CCCs and among many of the CSUs. Alignment, defined by Case, Jorgensen & Zucker (2004) as the degree to which the components of an education system such as standards, curricula, assessments, and instruction work together to achieve desired goals, plays a critical part in students' successful transition from secondary to postsecondary education.

The CCC SSTF (2012) placed emphasis on the need for "better alignment of curriculum." The SSTF proposed that with better alignment, students' success rates will increase in the areas of basic skills, career technical and workforce programs and in transfer to four-year institutions.

The Whitehouse (2013) reported that the United States has been outpaced internationally and that the country is ranked ninth in the world in the proportion of young adults enrolled in college. Adding to this situation is the ranking of the United States as 12th in the issuance of certificates and degrees. In an effort to generate educational reform, the Obama Administration has set goals to ensure that every student graduates from high school prepared for college and a successful career.

While many reasons have been identified as the country's inability to compete at a higher international level, alignment between secondary and postsecondary education is an issue of great concern (Kirst and Venezia, 2004). This must be addressed before U.S. students can compete internationally. The findings of this investigation could contribute to the reduction of remediation in postsecondary educational institutions. Successful articulation from secondary and postsecondary education however, is at the core of this study. As stated in Chapter Two, articulation is "the systematic coordination between an educational institution and other educational institutions and agencies designed to ensure the

efficient and effective movement of students among those institutions and agencies, while guaranteeing the students' continuous advancement in learning (Ernst, 1978).

The research questions for this study are:

1. To what extent is the last grade in high school ELA an accurate predictor for placement into a college-level English course?
2. To what extent are the last grade in high school ELA and time out of high school accurate predictors for placement into a college-level English course?
3. To what extent is time out of high school an accurate predictor for placement into a college-level English course?
4. Does common language exist between 11th and 12th grade ELA curriculum and college-level English curriculum?

Correlational Analysis

The quantitative data contains results from the commonly used on-line placement test, ACCUPLACER®. ACCUPLACER® and its website are owned and operated by The College Board and are designed for the use of educational institutions and students. Its purpose is to assist in determining if a student is prepared for a college-level course and to aid institutions using the test in making course placement decisions. Prior to starting the test, student data are collected

that include test scores, test related data, and personally identifiable information.[3] Identifiable information includes contact information, date of birth, gender, ethnicity, and other information that the institution administering the test requests. DVCC requested that students disclose their last grade in high school English prior to taking the test, if they earned a GED or high school diploma, and how long they had been out of high school (ACCUPLACER®, 2012).

A total of 274 students took the ACCUPLACER® placement test. Three students, however, did not take the English portion and were eliminated from this study. The final number of students in this study was 271. The data for Research Questions 1-3 were screened to ensure parametric assumptions of linearity, independence, homoscedasticity, and normality. All parametric assumptions were met. Table 5 below indicates the gender of students who took the English component of the ACCUPLACER® placement test.

Table 5.

Gender of Students Who Took The English Component of ACCUPLACER®

Gender	N	%
Male	137	51
Female	134	49
Total	271	100

[3] Test scores and test related data were not identified.

Table 6 reflects the ethnicity of the students who took the ACCUPLACER® test.

Table 6. *Ethnicity of Students who took the English Component of ACCUPLACER®*

Ethnicity	N	%
White	106	39.1
Black or African American	55	20.3
Mexican or Mexican American	48	17.7
Other Hispanic, Latino or Latin Am.	37	13.7
Multicultural	14	5.2
Other	11	4.0
Total	271	100

Table 7 reflects the age of students when ACCUPLACER® was taken.

Table 7. *Age of Student when ACCUPLACER® was Taken*

Age	N	%
< 18	28	10.3
18-20	85	31.4
21-25	72	26.6
26-30	41	15.1
31-40	29	10.1
41-50	17	6.2
51-60	2	0.3
Total	271	271

Table 8 indicates the students who earned a GED or high school diploma. Based upon the data collected, nearly 76 percent of students who took ACCUPLACER® earned either a GED or diploma while only 23 percent had not earned either a GED or diploma.

Table 8. *Students' GED or Diploma Status*

Earned GED or Diploma	N	%
Yes	205	75.6
No	63	23.2
Did Not Answer	3	1.2
Total	271	100

Students were asked to report the last grade earned in high school English before taking the ACCUPLACER® test. Nearly 34% of students reported earning a grade of “B” and 35% reported earning a “C” in their last English class before taking the ACCUPLACER® Placement Test. Nearly 23% reported earning an “A” in their last English class prior to taking the placement test. Since California Community Colleges do not require students to submit transcripts, students’ grades are self-reported. Based on the area high schools that feed into the community college, students' self-reported grades are assumed to be on a 4.0 scale: A=4.0, B=3.0, C=2.0, D=1.0, F=0.

Table 9*. Last Grade in High School before taking ACCUPLACER®.*

Grade	N	%
A	62	22.9
B	92	33.9
C	96	35.4
D	14	5.2
F	7	2.6
Total	271	100

Note. Based on the area high schools that feed into the community college in this study, students' self-reported grades are on a 4.0 scale: A=4.0, B=3.0, C=2.0, D=1.0, F=0.

Table 10 is the descriptive statistics for Last Grade in High School English. Based on the grading scale, the average grade earned by the students in this study was a “B”.

Table 10. *Descriptive Statistics for Study Participants who took the English Component of ACCUPLACER®*

Variable	N	AVG	SD	Min	Max	Skewness	Kurtosis
Last Grade in English	271	3.70	0.67	1.0	5.0	-0.40	-0.04

Note: Var. Last Grade in English - 5=A, 4=B, 3=C, 2=D, 5=F

Table 11 shows the number of years students were out of high school when ACCUPLACER® was taken. The data reveals that 29 students were still enrolled in high school at the time they took ACCUPLACER® while 120 students had been out of high school for more than five years.

Table 11. *Time out of High School when ACCUPLACER® was Taken*

Time out of High School (Years)	N	%
More than 5	120	44.3
More than 3, Less than 5	28	10.3
3 or less	94	34.7
Currently Enrolled	29	11.4
Total	271	100

Table 12 indicates English course placement after taking ACCUPLACER®.

Table 12. English Course Placement After taking ACCUPLACER®

English Placement	N	%
College-Level	40	14.8
Remedial 1	136	50.2
Remedial 2	64	23.6
Remedial 3 (Basic Skills)	31	11.4
Total	271	100

The variable English Course Placement identifies the English course to which students are assigned based on the combined Reading Comprehension and

Sentence Skills scores (see Table of Reading Comprehension and Sentence Skills). English placement levels are identified in the following manner:

- English Composition and Reading (College-level);
- Writing Fundamentals (Remediation Level 1);
- Basic Reading and Writing (Remediation Level 2);
- Basic Skills (Remedial Level 3) (individualized help and tutoring is available to students enrolled in Basic Skills classes).

Research Questions

Research Question 1:

To what extent is the last grade in high school ELA an accurate predictor for placement into a college-level English course?

A correlation was computed between last grade in high school English and college level English placement. The correlation analysis was used to determine the relationship between these two variables. In addition, a simple regression was computed using last grade in high school English (predictor) and College-Level English placement (criterion) to determine the degree to which these two variables are related. The Pearson correlation between Last Grade in High School English and College-Level English placement was statistically significant $r = .17$, $p < .01$. The regression analysis resulted in a statistically significant b – weight of $b = .15$, $p < .005$. The R^2 was .03.

The small positive correlation and b – weight suggest that those who score higher in Last Grade in High School English tended to score higher in College-Level English placement (See Table 9). While the relationship is significant, the amount of variance in the criterion variable College-level English placement accounted for by the predictor variable, last English grade in high school, is only 3% which suggests that there are many other factors that need to be explored relative to predicting College-level English Placement. Table 13 demonstrates a simple regression predicting College-Level English Placement using last grade in high school English.

Table 13. *Simple Regression Predicting College-Level English Placement using Last Grade in High School English*

Variable	B	SE	B
Last Grade in High School English	0.15**	0.05	0.17
R^2	.03		

Note: **p < .01

Research Question 2:

To what extent are the last grade in high school ELA and time out of high school accurate predictors for placement into a college-level English course?

A multiple regression analysis with Last Grade in High School ELA and Time Out of High School as predictors of College-Level English placement (criterion) was computed. Multiple regression was used for this analysis to find out if the last grade in high school prior to taking the placement test and the time a student was out of high school before taking the placement would predict the English course the student would be placed in. The correlation between Last Grade in English and College-Level English placement was $r = .17$, $p < .001$ and Time Out of High School and College-Level English placement was $r = .07$, $p = .253$. To test Research Question 2, the Last Grade in ELA and Time Out of High School, a simple multiple regression was conducted to see if they were a predictor for placement in college-level English. The R^2 was .05. When both predictors are in the regression equation the b – weights for Last Grade in High School English ($\beta = .21$, $p = .001$), and Time Out of High School ($\beta = .13$, $p = .039$).

The multiple regression indicated that Last Grade in High School English and Time Out of High School together were statistically significant predictors of College-Level English placement and both predictors were statistically significant predictors. Most interestingly, Time Out of High School also positively predicted college-level placement, but was less predictive than Last Grade in High School.

Table 14 displays the multiple regression analysis with Last Grade in High School and Time Out of High School as Predictors of College-Level English Placement.

Table 14. *Multiple Regression Analysis with Last Grade in High School English and Time Out of High School as Predictors of College-Level English Placement*

Variable	B	SE	β
Last Grade in High School English	0.19***	0.06	0.21
Time Out of High School	0.10*	0.05	0.13
R^2	.05		

Note: ***p < .001, *p < .05

Research Question 3:

To what extent is time out of high school an accurate predictor for placement into a college-level English course?

A correlation was computed between Time Out of High School and college level English placement. The correlation analysis was used to determine the relationship between these two variables. In addition, a simple regression was computed using Time Out of High School (predictor) and College-Level English placement (criterion) to determine the degree to which these two variables are related.

The Pearson correlation between Time Out of High School and College-Level English placement was not significant (r = .07, p = .253). The analysis resulted in a statistically significant b – weight of b = .05, p = .253. The multiple R^2 = .01 was, not statistically significant.

Since finding the non-significant correlation and the non-significant b – weight, Time out of High School is not a predictor of College-Level English placement. Table 15 shows a simple regression predicting College-Level English Placement using Time Out of High School.

Table 15. *Simple Regression Predicting College-Level English Placement using Time out of High School*

Variable	B	SE	β
Time Out of High School	0.06	0.05	0.07
R^2	.01		

Additional Correlations

Additional correlations between College-Level English Placement, Age and GED or Diploma were computed. These were:

- College-Level English Placement and Age: r = .08, p = .219. This result was found not to be statistically significant indicating that the variable age is not a predictor of English placement at a community college;
- College-Level English Placement and GED or Diploma: r = .01, p = .891. This result was found not to be statistically significant indicating that variable GED or diploma is not a predictor of English placement at a community college.

Qualitative Study

Content Analysis

The qualitative component of the study was a content analysis. The content analysis was conducted as a way to determine patterns of language similarities between the Common Core State Standards for California and College-level English at a community college. Analyzing common words across curricula could infer or reject the suggestion of the existence of common language.

The documents used to conduct the analysis were:

a. Common Core State Standards for English Language Arts for 11th & 12th grade;
b. Desert View Community College course outline of record for College-level English;
c. Desert View Community College course outline of record for remedial English.

College-level English is required in order to obtain an associate's degree offered by the community college and necessary for transfer to a four-year institution. The community college -- college-level English course meets the graduation requirement for a bachelor's degree at a college or university. Remedial English 1 is the remedial English course just below college-level English.

Research Question 4 Findings

Research Question 4:

Does common language exist between 11th and 12th grade ELA curriculum and college-level English course content?

Content analysis was used to answer Research Question 4 because it will provide information about word occurrences that exists across all documents used in this component of the study. Table 16 provides a ratings scale based on the frequency of occurrences for College-level English per thematic unit:

Table 16. *Frequency Rating in College-Level English*.

Frequency Rating in College-Level English	
Low	0-9
Moderately Low	10-18
Moderate	19-30
Moderately	31-50
High	50 or Higher

Development of Thematic Units and Definitions of each Unit

To develop the thematic units and their definitions, key the words found in the CCSS ELA, Remedial English 1 and College-level English were grouped together based on similar definitions, how a writer might apply each word in the writing process, and what and/or how tangible materials would be used in writing or research. This researcher then, looked at various definitions for most of the words using Webster's New World Dictionary (1988) and on-line searches for definitions and synonyms of words being searched.

Upon deciding what words should be placed into specific groups, this researcher defined each group by combining parts of found definitions and this researcher's own words. What resulted were the following thematic units which will be discussed in the "Unit Analysis Results" section:

Unit 1 - Creative Writing: The process of combining words to produce thought that is meaningful, fluent, flexible, expressive and unique to the individual who writes them;

Unit 2 - Ways of Thinking: Having the ability to think rationally for the purpose of developing a literary thought;

Unit 3 - Word Groups: An assemblage of words that logically connect to express a thought;

Unit 4 - Resource Materials: A collection of documents, books or other materials that define words for the specific purpose of learning;

Unit 5 - Ways of Understanding: The ability to interpret what is really being expressed against what is actually written;

Unit 6 - Ways to Identify: To associate a word or group of words verbally or in writing that classifies an idea;

Unit 7 - Word Organization: The systematic coordination of words for efficiency and clarity;

Unit 8 - Literary Terms: A collection of various types of literature and components within them.

Unit Analyses Results

Unit 1 – Creative Writing

Definition: The process of combining words to produce thought that is meaningful, fluent, flexible, expressive and unique to the individual who writes them. Figure 2 illustrates the Creative Writing thematic unit.

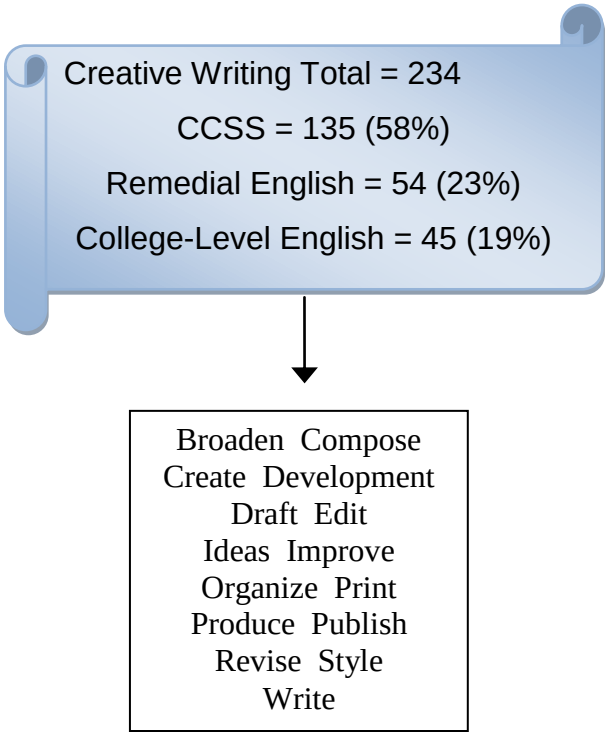


Figure 2. Creative Writing.

These words are grouped together because all are relevant to the writing process. Developing ideas, organization, revising editing and making

improvements through the development of drafts are important elements of the writing process. The combined number of occurrences found in Unit 1 was 234. The occurrences found within the CCSS for ELA grades for the 11th & 12th grade was 135 (63%). The number of occurrences found in Remediation English was 54 (23%) and the number of occurrences found in College-level English was 45 (19%).

Unit 1 frequency of common word occurrences in College-level English are moderately high inferring that common language exists between the CCSS and the course content for College-level English for language describing creative writing. The frequency of common word occurrences between the CCSS and College-level English course content suggests that common language exists between the curricula in the area of Creative Writing.

Unit 2 - Ways of Thinking

Definition: Having the ability to think rationally for the purpose of developing a literary thought. Figure 3 shows the Ways of Thinking thematic unit.

These words refer specifically to the thought processes required to develop the coherency necessary to compose any type of manuscript. Whether the document relates to literature, fiction or nonfiction, science or is meant to persuade a reader to form an opinion, the writer must convey the message with clarity so that the readers can follow what the writer intends for them to understand.

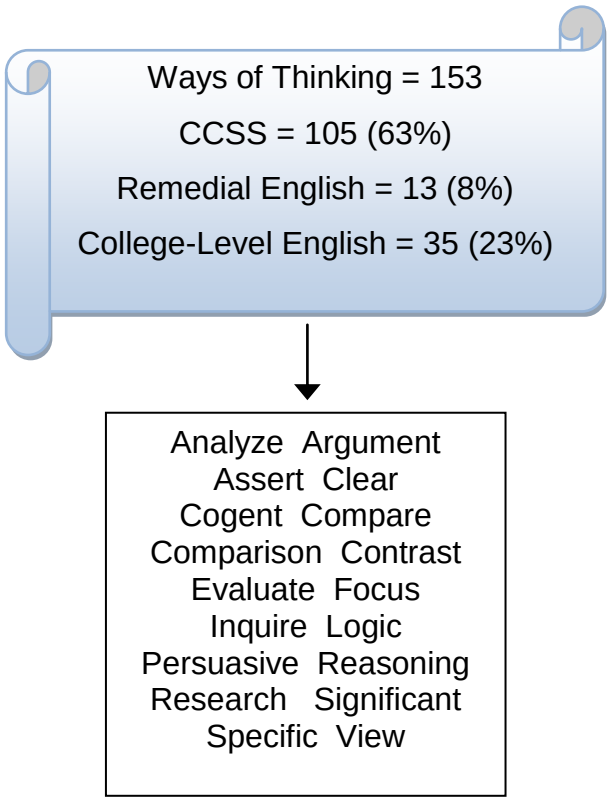


Figure 3. Ways of Thinking

Among the combined number of 153 occurrences, there were 105 (63%) found in the CCSS, 13 (8%) in Remedial English 35 (23%) in College-level English. The frequency of common word occurrences between the CCSS and College-level English course content suggests that common language exists between the curricula in the Ways of Thinking unit. The frequency of words in common that occur in College-level English are moderately high at 35 (23%). words. It is worthy to note that there is a low percentage in the Ways of Thinking unit associated with the remedial English class.

Unit 3 - Word Groups

Definition: An assemblage of words that logically connect to express a thought. Figure 4 shows the Word Groups thematic unit.

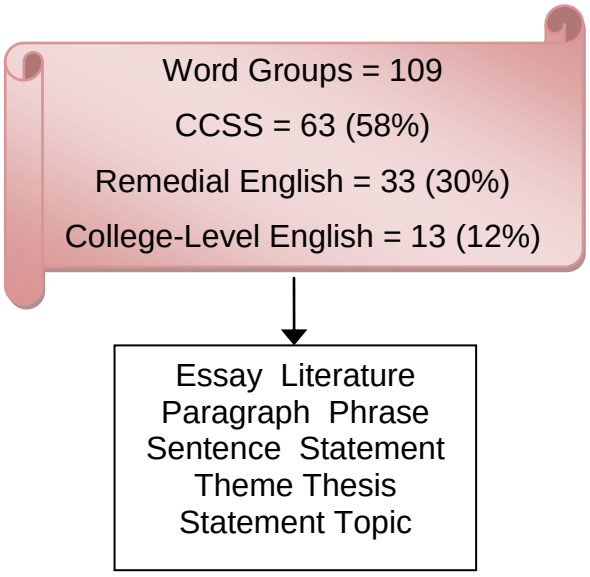


Figure 4. Word Groups

These words pertain to groups of words that convey an idea. The thesis statement, theme or topic, for example, gives the reader some idea of what a story will be about. Phrases and paragraphs discuss specific points of a story and then move on to another thought expressed within a combined group of words.

There were a total of 109 occurrences found in Unit 3. Sixty-three (58%) occurrences were found in the CCSS, 33 (30%) occurrences were in Remedial English 1 and 13 (12%) were found in College-level English. In the Word Groups unit, College-level English has a low frequency of occurrence when compared with the CCSS curriculum for ELA inferring that common language is modest between them. In the Word Groups Unit, there is higher overlap with Remedial English.

Unit 4 - Resource Materials

Definition: A collection of documents, books or other materials that define words for the specific purpose of learning. Figure 5 shows the Resource Materials thematic unit.

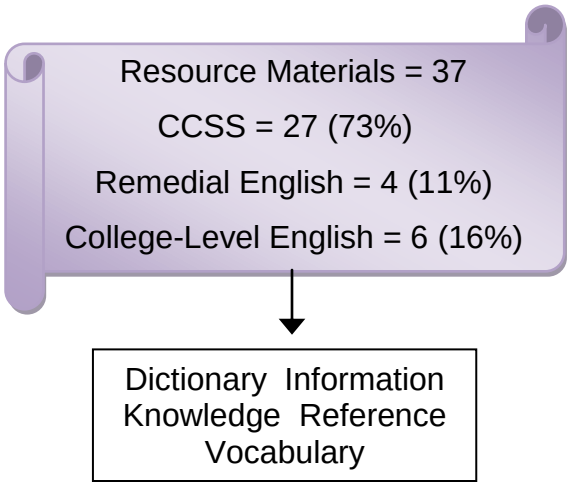


Figure 5. Resource Materials.

These words pertain to finding answers to the meanings of words, increasing the number of words one knows and increasing a writer's application (usage) of these words. The total number of occurrences found among these words was 37; among the CCSS there were 27 (73%) occurrences, Remedial English had four (11%) occurrences and within the college-level English course content there were six (16%) occurrences.

For Unit 4, the frequency of common word occurrences between the CCSS and College-Level English course content reflects a low percentage of common language between the CCSS and College-level English.

Unit 5 - Ways of Understanding

Definition: The ability to interpret what is really being expressed against what is actually written. Figure 6 shows the Ways of Understanding thematic unit:

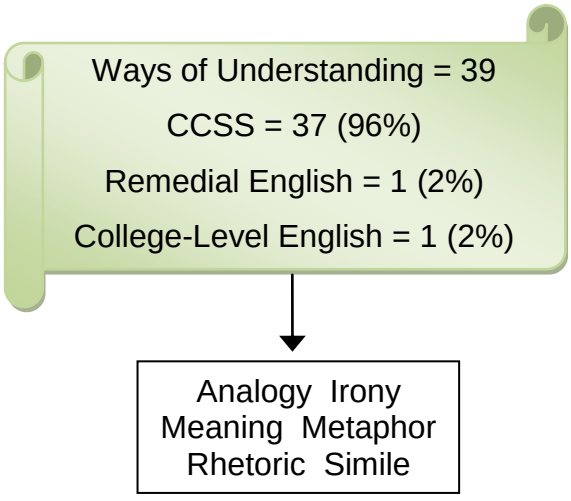


Figure 6. Ways of Understanding.

Ways of Understanding refers to reading hidden messages, the writer's inferences and understanding the writer's intent. While there were 39 occurrences in this group of words, 37 (96%) were found in the CCSS and only one (2%) occurrence was found in both Remedial and College-level English.

For Unit 5 the frequency of common word occurrences between the CCSS and College-Level English course content reflects a low percentage of common language between the CCSS and College-level English. It is worthy to note that there is a low percentage in the Ways of Understanding Unit associated with the remedial English class.

Unit 6 - Ways to Identify

Definition: To associate a word or group of words verbally or in writing that classifies an idea. Figure 7 shows the Ways to Identify thematic unit.

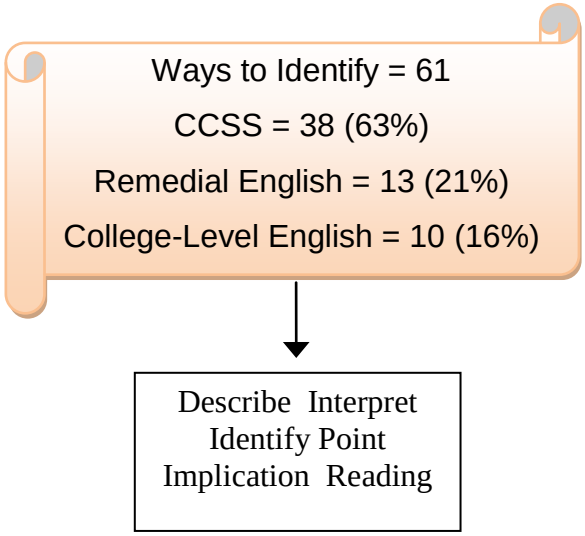


Figure 7. Ways to Identify.

The total number of occurrences found among these words was 61; among the CCSS there were 38 (63%) occurrences, Remedial English had 13 (21%) occurrences and within the college-English course content, there were 10 (16%).

In the Ways to Identify unit, College-Level English has a low frequency of occurrence when compared with the CCSS curriculum for English language-arts inferring minimal common language between them. In the Ways to Identify Unit, there is higher overlap with Remedial English.

Unit 7 - Word Organization

Definition: The systematic coordination of words for efficiency and clarity. Figure 8 shows the Word Organization thematic unit.

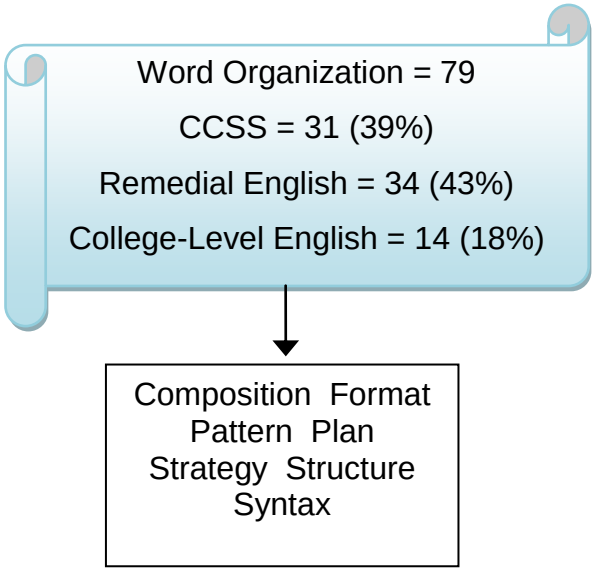


Figure 8. Word Organization.

The words in Unit 7 address the strategic or intentional way in which the writer arranges words. How writers organize words may affect the way readers, identify favorite authors such as Dr. Seuss, John Grisham, and Toni Morrison.

There were a total of 79 occurrences found in Unit 7. Thirty-one occurrences were found in the CCSS (39), 34 occurrences were found in Remedial English (34%) and 14 (18%) were found in College-Level English.

In the Word Organization unit, College-Level English has a moderately low frequency of occurrence when compared with the CCSS curriculum for ELA inferring minimal common language between them. In the Word Organization unit, there is higher overlap with Remedial English.

Unit 8 - Literary Terms

Definition: A collection of various types of literature and components within them. Figure 9 shows the Literary Terms thematic unit.

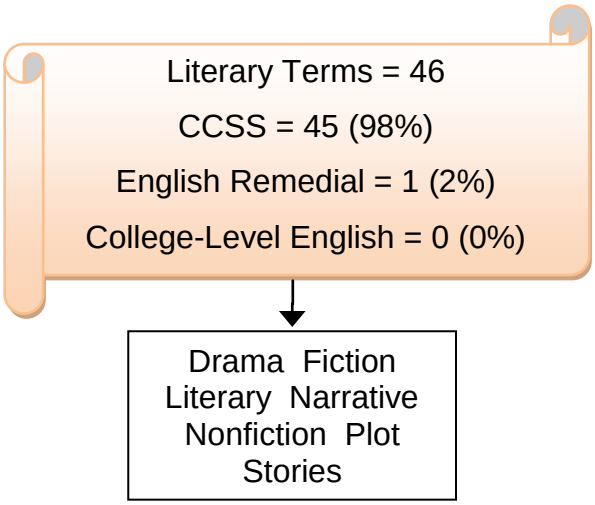


Figure 9. Literary Terms.

This grouping of words refers to literary genre and the components within various types of literature. While there were 46 occurrences in this group of words, 45 (98%) were found in the CCSS, only one (2%) occurrence was found in Remedial English and zero (0) (0%) occurrences were found in college-level English.

In the Literary Terms unit, the common word frequency of zero (0) occurrences between the CCSS and College-Level English course content reflects that there is no common language.

Summary

Chapter Four emphasized that successful articulation was at the core of this study. Articulation is, "the systematic coordination between an educational institution and other educational institutions and agencies designed to ensure the efficient and effective movement of students among those institutions and agencies, while guaranteeing the students' continuous advancement in learning (Ernst, 1978, p. 38). In order to begin addressing articulation, four research questions were asked. To answer the research questions, a mixed-method study was conducted consisting of a qualitative analysis and content analysis. The quantitative component of the study addressed research questions 1-3 listed below:

RQ1: To what extent is the last grade in high school English language-arts an accurate predictor for placement into a college-level English course?

RQ2: To what extent are the last grade in high school English language-arts and time out of high school accurate predictors for placement into a college-level English course?

RQ3: To what extent is time out of high school an accurate predictor for placement into a college-level English course?

Quantitative data was collected from the ACCUPLACER® (2011) placement test. The ACCUPLACER® test "assists with determining if students are prepared for a college-level course or if they would benefit from a developmental course" (p. 6).

Two-Hundred and seventy-one students took the English component of the placement test. Based on test scores, variables chosen as predictors of college placement and demographic information provided by answers of students' who took the test, the findings were:

RQ1: the last grade earned in 11th and 12th grade ELA is a factor in predicting English course placement at a community college but only explains 3% of the variance suggesting that other variables should be explored;

RQ2: the last grade earned in 11th & 12 grade ELA when combined with time out of high school is a predictor of English placement, however, last grade in high school was a stronger predictor than time out of high school;

RQ3: time out of high school by itself was not a predictor of college-level English placement at a community college.

The content analysis answered Research Question 4:

RQ4: Does common language exist between 11th and 12th grade English language-arts curriculum and college-level English curriculum?

This analysis evaluated the CCSS for 11th and 12th grade ELA and the College-Level English content standards in search of the existence of common language across curricula. For this study, common language is defined as the similarity of key words that can be compared between similar documents (Long, 2014). Remedial English 1 was also included in the study but only to observe the differences in word frequencies between the CCSS and Remedial English 1 and the College-level content standards and Remedial English 1. Word searches were conducted across all documents in this component of the study for key words and the frequencies of occurrence in the CCSS, then in the College-level and Remedial 1 English course contents. These words were then separated into thematic units and based on a frequency rating scale, evaluated for the existence of common language.

The finding for Research Question 4 was that:

RQ4: Common language between the CCSS and college-level English exists but at a moderately low level.

CHAPTER FIVE

FINDINGS, IMPLICATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Major findings of the correlational analysis:

- RQ1: the last grade earned in 11th and 12th grade English language-arts is a factor in predicting English course placement at a community college but only explains 3% of the variance suggesting that other variables should be explored;
- RQ2: the last grade earned in 11th & 12 grade English language-arts when combined with time out of high school is a predictor of English placement, however, last grade in high school English was a stronger predictor than time out of high school;
- RQ3: time out of high school by itself was not a predictor of college-level English placement at a community college.

Major finding of the content analysis:

- RQ4: Common language exists between the CCSS and College-level English, however, at a moderately low level.

Implications

This researcher asked the question: Had common language been found between the CCSS ELA, Remedial English 1 course content and College-level English course content, what would this researcher have expected?"

This researcher would have expected a strong overlap between the CCSS and Remedial English 1 course content. The CCSS are designed to "provide a consistent, clear understanding of what students are expected to learn" and to reflect the knowledge and skills needed for success in college (CCSS, 2013). Given the expectations of the CCSS ELA and that Remedial English 1 is one level below College-level English, the overlap between the CCSS ELA and Remedial English would be very high, virtually on the same level. This result would eliminate the need for Remedial English 1.

Common language between the CCSS ELA and College-level English course content would have a different result. The CCSS ELA and College-level English course content would overlap at a moderate level. Because the CCSS, overall, are designed for students to be "college ready," students would be prepared for a college-level English course, having the foundation needed to be successful in college-level English and other courses designed to be at the college level; psychology, history, sociology, communications, etc.

Implications of Content Analysis Results

In the Creative Writing unit (1), 135 word occurrences (58%) were found in the CCSS and in College-level English, 45 word occurrences (19%) were found. This comparison suggests that Creative Writing may not be a major focus in a college-level English course and that students may have difficulty in college-level English. Remedial English 1 yielded 55 words (23%) suggesting that common language between remedial English and college-level English may seem more closely aligned but possibly in a category (unit) not discovered in this analysis. It also suggests that students may have difficulty early in the course.

In the Ways of Thinking unit (2), 105 word occurrences (63%) were found in the CCSS. In College-level English, 35 word occurrences (23%) were found suggesting that common language exists between them. It also suggests that if students passed their 11th and 12th grade English course with at least a "C", they would transition into a community college with the foundation to be successful in college-level English. The finding of 13 word occurrences in Remedial English 1 (8%) suggests that for this unit, a remedial course with a focus on words in the Ways of Thinking unit would not be necessary.

In the Word Groups unit (3), 63 word occurrences (58%) were found within the CCSS while in Remedial English 1, 33 word occurrences (30%) were found suggesting a higher level of common language between the CCSS and remedial English. Word occurrences of only 13 (12%) in College-level English compared with the CCSS suggests that students may not have the skill-set for a college-

level English course requiring them to apply this group of words (essay, literature, theme, thesis statement, etc). These words may not be a focus in this particular college-level course.

In the Resources Materials unit (4), only 27 (73%) word occurrences were found in the CCSS, Remedial English 1 had only 4 (11%) and College-level English had 6 (16%) word occurrences. The word occurrences in this unit were low overall. Students, who complete their ELA class under the CCSS, would theoretically have the foundation be successful in College-level English. Resource materials in college, however, will be different than those accessible to many high school students. If students are taught to use library resources in the early stages of their college career, they should gain the skills to be successful in the Resource Materials unit. For this unit, the Remedial 1 English course would be unnecessary.

In the Ways of Understanding unit (5) there were 37 word occurrences (96%) found in the CCSS and only 1 (2%) word occurrence in Remedial English 1 and only 1 (2%) word occurrence in College-level English. The result in this unit is very telling. It suggests that there is no common language between the CCSS and Remedial English 1 or College-level English. It also suggests that this grouping of words may be better applied in a course other than College-level English; perhaps they would be a better fit in a college-level literature course. Literature courses are an acceptable second-level English course transferable to CSU and UC under some articulation agreements. In this context, the definition

of articulation by USLegal (2010) is most appropriate: "The process of comparing the content of courses transferred between postsecondary institutions such as colleges and universities." This is also known as "course articulation."

In the Ways to Identify unit (6), 38 (63%) word occurrences were found in the CCSS, 13 (21%) word occurrences were found in Remedial English 1 and 10 (16%) word occurrences were found in College-level English. Common language among Remedial English 1 and College-level English are low when compared with the CCSS. While a small number of words were found in this unit, it suggests that students who are less familiar with these words may not have the skills to apply them in a college-level English course and would have difficulty transitioning from the CCSS to college-level English. The word occurrence differences between Remedial English 1 and College-level English infer that Remedial English 1 would not be necessary as it relates to unit 6.

In the Word Organization unit (7), the word occurrences in the CCSS were 31 (39%), in Remedial English 1 word occurrences were 34 (43%) and in College-level English, word occurrences were 14 (18%). Of all the units thus far, Remedial English 1 has the highest word occurrences suggesting that the CCSS and Remedial English 1 in this category are parallel courses. This also suggests that for this unit, Remedial English 1 is unnecessary and that common language between the CCSS and College-level English is low. Students could have difficulty in the early stages of the college-level English course.

In the Literary Terms unit (8), there is an extremely large discrepancy between the CCSS that yielded 45 (98%) word occurrences, only 1 (2%) word occurrence in Remedial English 1 and zero word occurrences were found in College-level English. This implies that literary concepts are dominant in the CCSS and they do not appear in College-level English suggesting that there is no common language between the CCSS and College-level English. This result also suggests that students may have a very difficult time transitioning and performing the skills and tasks of college-level English.

Implications of the Study

The content analysis of this study demonstrates the inconsistencies between CCSS ELA and college-level English as was asserted by Kirst and Venezia in 2004. While Last Grade in High School ELA and Time out of High School are predictors of English Placement, it accounted for only a small degree of variance suggesting that other variables should be explored. The findings indicated that if there were a stronger relationship between high school English grades and the ACCUPLACER® placement test at the community college there may be less need for further exploration associated with alignment and common language. The thematic units that emerged from the content analysis provide an opportunity for dialogue between secondary and postsecondary institutions for the purpose of providing consistency and appropriate scaffolding between CCSS ELA and college-level English. The results of this study suggest that although

the CCSS have recently been adopted, more dialogue is needed between secondary and postsecondary institutions regarding ELA curricular alignment. This leads to the importance of the content analysis in order to further explore alignment issues between the CCSS and English course content at a community college.

Limitations of the Study

Limitations of the study are:

- The population of students in this study are not representative of all 112 California community colleges;
- Students who took the ACCUPLACER® Test (research questions 1-3) took high school ELA under the old Content Standards for California;
- Grades were self-reported;
- Pending approval by the State Board of Education, the CCSS will be fully implemented in the 2014-15 academic year. Therefore, no data is available to evaluate the success of 11th and 12th grade students who took ELA under the CCSS;
- A content analysis was not performed for common words between ACCUPLACER® and the CCSS. This is under consideration for a future study;
- The required literature English course needed for transfer to the CSU and UC was not included in the study;

- Advanced placement course curriculum was not included in this study.

Recommendations for Future Research

Future research should be explored to determine why when paired with Last Grade in High School, Time out of High School is statistically significant. Yet, when standing alone, Time out of High School is not statistically significant. Additionally, more variables that predict college placement should be considered for analysis.

Further research is needed to expand on content analysis of the CCSS ELA, college English composition and assessment instruments used by CCCs. Based on content analyses studies, the results could be used to develop a common understanding of common language between postsecondary and secondary institutions associated with ELA and college-level English.

Further exploration is needed to examine the content analysis finding that some units had extremely low percentages of common language and some units had high percentages of common language in the Remedial 1 English course content when compared with the CCSS, coupled with an analysis of the need or not for a higher level of critical thought in the Remedial 1 English course (Henriquez, 2012, pp 28-29). Overall, more content analyses studies of the CCSS ELA, remedial English courses, and English composition taught in the CCCs should be conducted.

Finally, it is recommended that future researchers engage in a longitudinal study while including such variables as actual English grades and standardized test scores beginning in Elementary school, a writing evaluation, college readiness assessments such as the Explore, Plan, Act, and PSAT, and SAT when available, a writing evaluation, inferential reasoning assessment, students' home language, and students' language proficiency throughout their progression in school. In addition to the English content that was analyzed at the high school and community college level, future studies should include observations of what is actually being taught in the classroom.

APPENDIX A

INSTITUTIONAL REVIEW BOARD LETTER

CALIFORNIA STATE UNIVERSITY
SAN BERNARDINO

Academic Affairs
Office of Academic Research • Institutional Review Board

April 22, 2013

CSUSB INSTITUTIONAL REVIEW BOARD
Administrative Review
IRB# 12063
Status
APPROVED

Ms. Janet Long
c/o: Prof. Donna Schnorr
Department of Educational Psychology and Counseling
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

Dear Ms. Long:

Your application to use human subjects, titled, "Addressing Articulation between High School English Language Arts and College Level English" has been reviewed and approved by the Chair of the Institutional Review Board (IRB) of California State University, San Bernardino and concurs that your application meets the requirements for exemption from IRB review Federal requirements under 45 CFR 46. As the researcher under the exempt category you do not have to follow the requirements under 45 CFR 46 which requires annual renewal and documentation of written informed consent which are not required for the exempt review category. However, exempt status still requires you to attain consent from participants before conducting your research.

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval notice does not replace any departmental or additional approvals which may be required.

Although exempt from federal regulatory requirements under 45 CFR 46, the CSUSB Federal Wide Assurance does commit all research conducted by members of CSUSB to adhere to the Belmont Commission's ethical principles of respect, beneficence and justice. You must, therefore, still assure that a process of informed consent takes place, that the benefits of doing the research outweigh the risks, that risks are minimized, and that the burden, risks, and benefits of your research have been justly distributed.

You are required to do the following:

1) Protocol changes must be submitted to the IRB for approval (no matter how minor) before implementing in your prospectus/protocol. Protocol Change Form is on the IRB website.
2) If any adverse events/serious adverse/unanticipated events are experienced by subjects during your research. Form is on the IRB website.
3) And, when your project has ended.

Failure to notify the IRB of the above, emphasizing items 1 and 2, may result in administrative disciplinary action.

If you have any questions regarding the IRB decision, please contact Michael Gillespie, IRB Compliance Coordinator. Mr. Michael Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, or by email at mgillesp@csusb.edu. Please include your application identification number (above) in all correspondence.

Best of luck with your research.

Sincerely,

Sharon L Ward, Ph.D.

Sharon Ward, Ph.D, Chair
Institutional Review Board

SW/mg

cc: Prof. Donna Schnorr, Department of Educational Psychology and Counseling

909.537.7588 • fax: 909.537.7028 • http://irb.csusb.edu/
5500 UNIVERSITY PARKWAY, SAN BERNARDINO, CA 92407-2393

March 18, 2013

I understand that the purpose of this study is to determine if high school grade(s) earned in English language arts predict placement level into an English class upon entering a community college.

Specifically, College gives permission to Janet Long for the use ACCUPLACER Placement Test results from the categories listed in the table below:

1	**Birth date**	13	**College Level Math**
2	**Age**	14	**Grade in last English**
3	**Gender**	15	**Grade in Math**
4	**Self Description**	16	**GED or Diploma**
5	**City**	17	**Important to People**
6	**English**	18	**Important to You**
7	**Math**	19	**Time out of HS**
8	**Reading**	20	**PER-Reading Comprehension**
9	**Reading Comprehension**	21	**PER-Sentence Skills**
10	**Sentence Skills**	22	**PER-Arithmetic**
11	**Arithmetic**	23	**PER-Elementary Algebra**
12	**Elementary Algebra**		

Institutional Research
Coordinator
Institutional Effectiveness

I agree that no identifying information such as student names or student identification is being requested or will be supplied.

I agree that Community College's participation in this study is voluntary. There is no penalty or loss for refusal to participate in the study and the college is free to discontinue its participation at any time.

I understand that the data attained from this study will be stored in your computer, protected by a password known only to you. Paper data will be maintained in a locked file cabinet that only be accessed by Janet Long.

There are no risks or discomforts to students during this study because as stated earlier, no identifying information is being requested/used in this study.

The benefit of college's participation in this study will be that the requested data could be helpful in reducing the number of first-time freshmen who will be required to take remedial English.

CONTACT: I understand that the study will be conducted under the guidance of the following dissertation committee members:

Dr. Thelma Moore-Steward, Professor Cal State San Bernardino (909) 534-5646 msteward@csusb.edu	Dr. Donna Schnorr, Professor Cal State San Bernardino (909) 537-7313 dschnorr@csusb.edu	Dr. Bonavita Quinto-MacCallum, Professor Moreno Valley College (951) 571-6386 Bonavita.Quinto@mvc.edu

Should I have any questions regarding this research or feel the college's employees or students are being harmed in any way during this project I will contact a member(s) of your dissertation committee.

Institutional Research Coordinator
Institutional Effectiveness

RESULTS: Results of the study can be obtained from:

California State University, San Bernardino
Pfau Library
5500 University Parkway
San Bernardino, CA 92407-2393

SIGNATURE:

Print Name: _____

Signature: _____ Date: 3-18-13

Title: Institutional Research Coordinator

APPENDIX B

TEST OF PRINCIPAL ASSUMPTIONS OF LINEAR REGRESSIONS

Tests for Principal Assumptions of Linear Regression

Descriptive Statistics

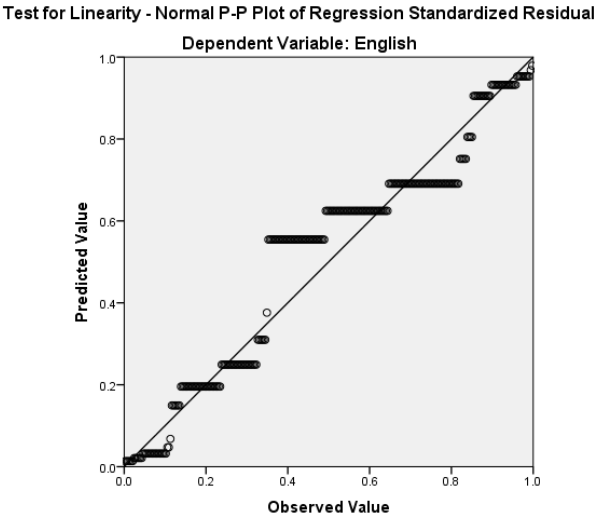
	Mean	Std. Deviation	N
English	2.683	.8622	271
LEng	3.694	.9653	271

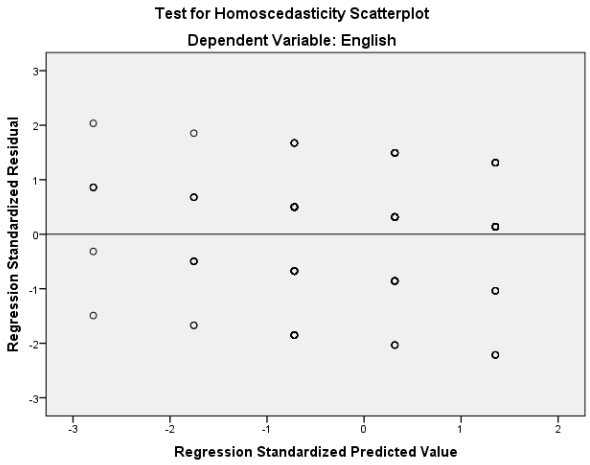
Model Summary[b]

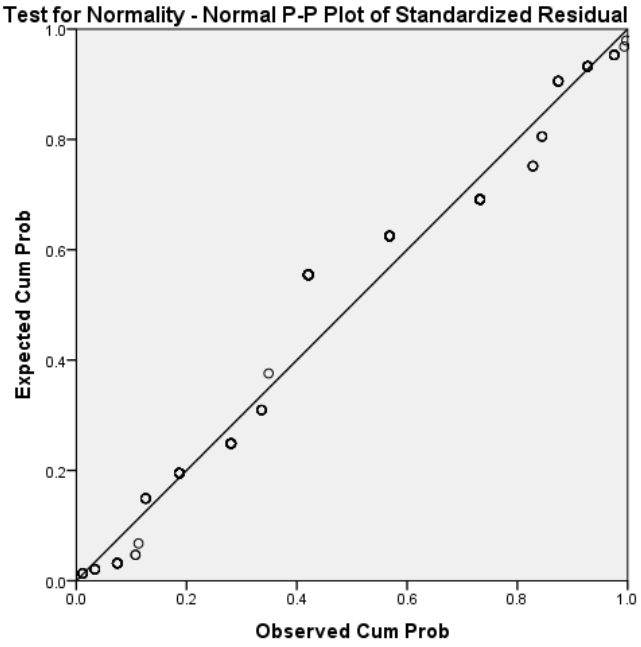
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.172[a]	.030	.026	.8509	1.964

a. Predictors: (Constant), LEng

b. Dependent Variable: English







Descriptive Statistics

	Mean	Std. Deviation	N
English	2.683	.8622	271
LEng	3.694	.9653	271
TimeoutofHS	2.882	1.0992	271

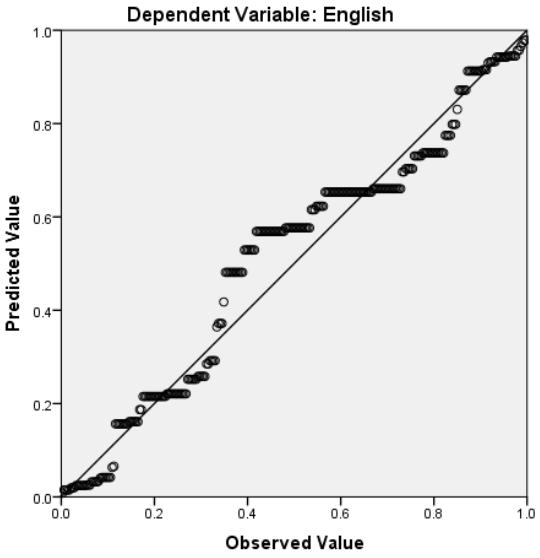
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.212[a]	.045	.038	.8457	1.987

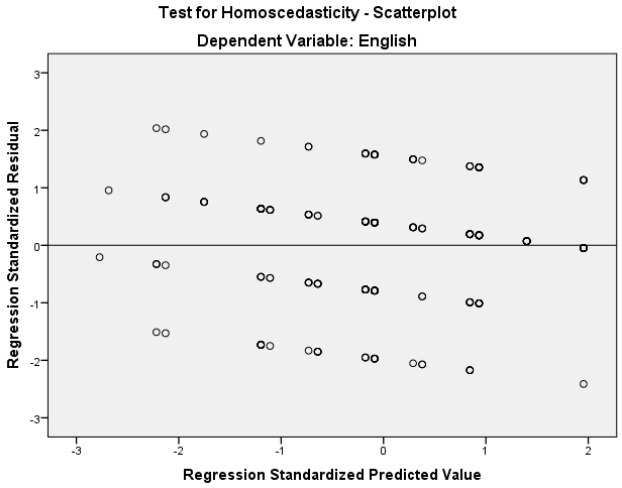
a. Predictors: (Constant), TimeoutofHS, LEng

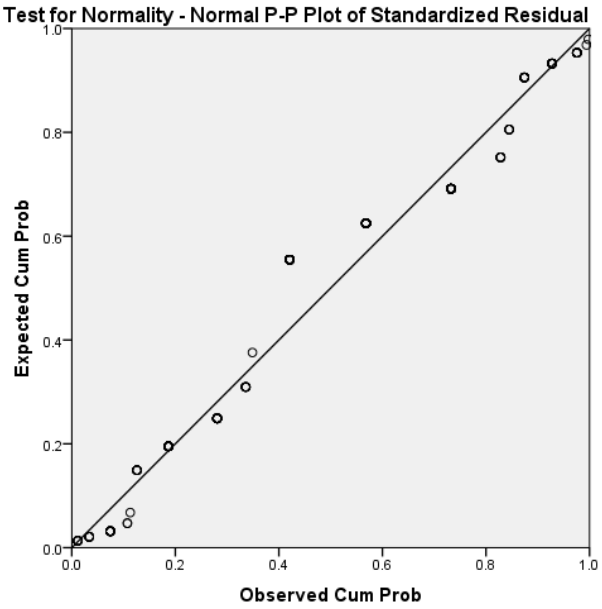
b. Dependent Variable: English

Test of Linearity - Normal P-P Plot of Regression Standardized Residual



Test for Homoscedasticity - Scatterplot





Descriptive Statistics

	Mean	Std. Deviation	N
English	2.683	.8622	271
TimeoutofHS	2.882	1.0992	271

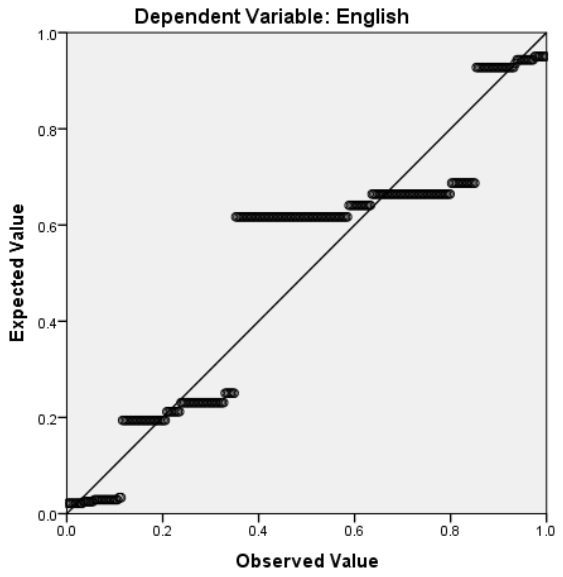
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.070[a]	.005	.001	.8617	2.018

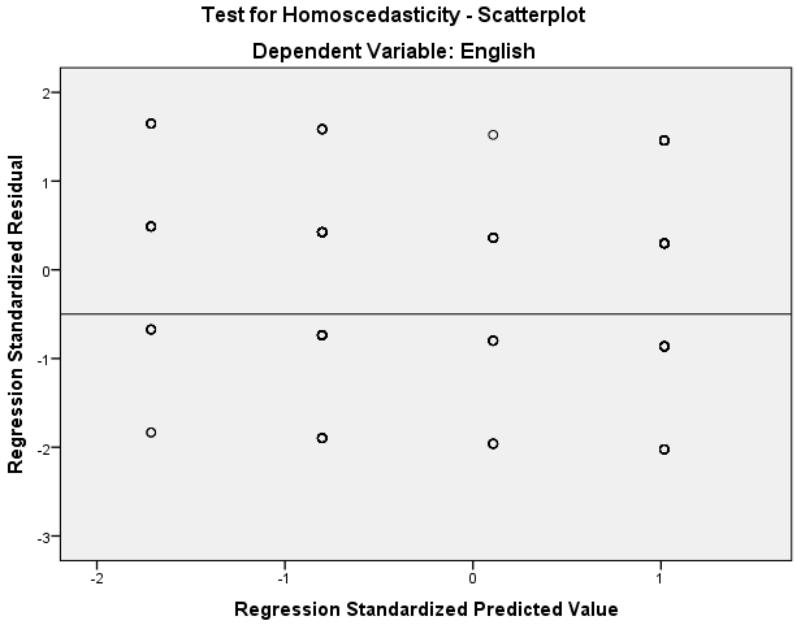
a. Predictors: (Constant), TimeoutofHS

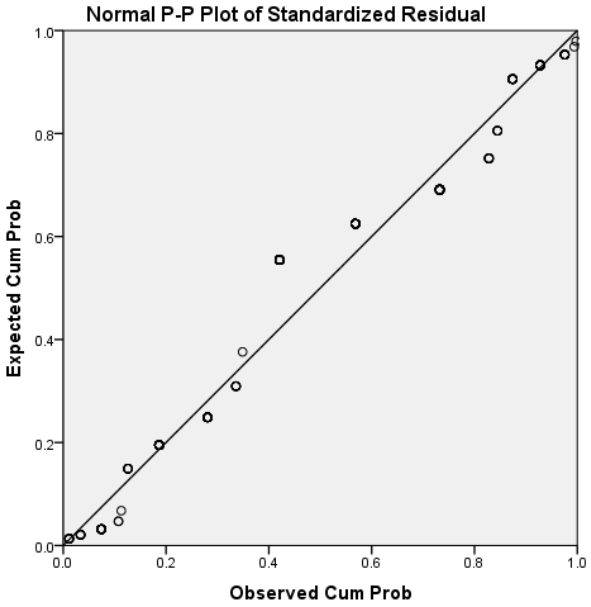
b. Dependent Variable: English

Test for Linearity - Normal P-P Plot of Regression Standardized Residual



Test for Homoscedasticity - Scatterplot




Normal P-P Plot of Standardized Residual
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0

APPENDIX C

RECORDED VARIABLES

Recoded Variables

Gender	Ethnicity	English Placement
Male = 1	White = 1	1500 = 4
Female = 2	Black or African American = 2	1400 = 3
	Mexican or Mexican American = 3	1300 = 2
	Asian, Asian American or Pacific Islander = 4	1200 = 1
	Other Hispanic, Latino or Latin American = 5	
	Multicultural = 6	1500 = College-Level Engl
	Puerto Rican = 7	1400 = Remedial Engl 1
	Other = 8	1300 = Remedial Engl 1
	Choose not to anwer = 9	1200 = Basic Skills

Time out of H. S.	Time out of H. S.	L-English
Currently enrolled =1	Five years or more = 4	5 = A
Three years or less = 2	More than 3, less than 5 = 3	4 = B
More than 3, less than 5 = 3	Three years or less = 2	3 = C
Five years or more = 4	Currently enrolled =1	2 = D
		1 = F

GED or Diploma
Yes = 1
No = 2

APPENDIX D

WORD COUNT

	A	B	C	D	E	F	G	H
1	Words	CCSS 11th & 12th Grade NOC	Remedial English 1 NOC	College Level NOC	Total Count per Word			UNIT #
2			Course Content					
3	analogy	2	0	0	2			
4	analyze	21	3	4	28			
5	argument	11	1	2	14			
6	articulate	1	0	0	1			
7	assert	1	0	0	1			
8	audience	8	0	0	8			
9	broaden	1	0	0	1			
10	century	4	0	0	4			
11	characters	4	0	0	4			
12	clear	4	0	2	6			
13	cogent	1	0	0	1			
14	cohesion	2	0	0	2			
15	collaborate	2	0	0	2			
16	commas	1	2	0	3			
17	compare	1	1	0	2			
18	comparison	0	2	2	4			
19	compose	0	5	0	5			
20	composition	0	1	1	2			
21	conclusion	2	1	0	3			
22	context	7	1	0	8			
23	contrast	0	3	2	5			
24	create	7	3	3	13			
25	deadline	1	0	0	1			
26	describe	0	4	1	5			
27	develop(ment)	14	3	3	20			
28	dialogue	1	0	0	1			
29	dictionary	5	0	0	5			
30	digital	5	0	0	5			

	A	B	C	D	E	F	G	H
1	Words	CCSS 11th & 12th Grade NOC	Remedial English 1 NOC	College Level NOC	Total Count per Word			UNIT #
31	discipline	2	1	0	3			
32	draft	2	2	1	5			
33	drama	7	0	0	7			
34	edit	3	4	1	8			
35	essay	2	13	11	26			
36	evaluate	9	0	3	12			
37	evidence	11	2	0	13			
38	feedback	1	0	0	1			
39	fiction	3	0	0	3			
40	focus	4	0	1	5			
41	format	5	3	1	9			
42	grammatical	0	6	4	10			
43	graphic	3	0	0	3			
44	header	1	0	0	1			
45	ideas	20	5	1	26			
46	identify	2	4	0	6			
47	imply/implication	1	0	0	1			
48	improve	1	0	0	1			
49	information	17	2	4	23			
50	inquire	1	0	0	1			
51	interact	5	0	0	5			
52	interpret(ation)	3	1	0	4			
53	irony	1	0	0	1			
54	knowledge	22	0	0	22			
55	library	0	2	5	7			
56	literary	13	0	0	13			
57	literature	12	0	0	12			
58	logic	1	0	0	1			
59	meaning	31	0	0	31			

	A	B	C	D	E	F	G	H
1	Words	CCSS 11th & 12th Grade NOC	Remedial English 1 NOC	College Level NOC	Total Count per Word			UNIT #
60	media	2	1	0	3			
61	metaphor	1	0	0	1			
62	MLA	0	2	6	8			
63	narrative	7	1	0	8			
64	nonfiction	6	0	0	6			
65	norms	2	0	0	2			
66	organize	6	4	1	11			
67	paragraph	2	4	0	6			
68	patterns	1	2	0	3			
69	persuasive	1	0	0	1			
70	phrase	15	0	0	15			
71	plagiarism	2	0	0	2			
72	plan	2	2	1	5			
73	plot	1	0	0	1			
74	poetry	4	0	0	4			
75	points	6	0	1	7			
76	principle	2	1	3	6			
77	print	4	0	1	5			
78	produce	8	0	2	10			
79	pronoun	3	2	0	5			
80	proofread	0	1	1	2			
81	publish	2	0	0	2			
82	punctuation	5	2	1	8			
83	purpose	19	3	1	23			
84	range	25	0	0	25			
85	reading	28	8	8	44			
86	reasoning	11	0	0	11			
87	reference	5	2	2	9			
88	research	10	2	17	29			

	A	B	C	D	E	F	G	H
1	Words	CCSS 11th & 12th Grade NOC	Remedial English 1 NOC	College Level NOC	Total Count per Word			UNIT #
89	revise/revision	2	2	2	6			
90	rhetoric	1	1	0	2			
91	rhetorical	3	0	1	4			
92	satire	2	0	0	2			
93	sentence	6	5	0	11			
94	Shakespeare	3	0	0	3			
95	significant	2	0	0	2			
96	simile	1	0	0	1			
97	specific	23	0	1	24			
98	speech	4	1	0	5			
99	spell	3	0	0	3			
100	statement	3	0	0	3			
101	story/stories	8	0	0	8			
102	strategy	4	4	0	8			
103	structure	13	3	1	17			
104	style	9	4	4	17			
105	syntax	6	0	0	6			
106	synthesize	1	2	1	4			
107	technical	3	0	0	3			
108	text	85	7	4	96			
109	themes	8	0	0	8			
110	thesis	1	3	1	5			
111	topics	13	7	1	21			
112	understand	11	0	0	11			
113	verb	3	3	0	6			
114	view	4	1	1	6			
115	vocabulary	8	2	0	10			
116	voice	1	1	0	2			
117	words	33	2	1	36			

	A	B	C	D	E	F	G	H
1	Words	CCSS 11th & 12th Grade NOC	Remedial English 1 NOC	College Level NOC	Total Count per Word			UNIT #
118	write	56	22	26	104			
119	writers	3	0	3	6			
120	writing	56	22	26	104			
121								
122								
123	broaden	1	0	0	1			1
124	compose	0	5	0	5			
125	create	7	3	3	13			
126	development	14	3	3	20			
127	draft	2	2	1	5			
128	edit	3	4	1	8			
129	ideas	20	5	1	26			
130	improve	1	0	0	1			
131	organize	6	4	1	11			
132	print	4	0	1	5			
133	produce	8	0	2	10			
134	publish	2	0	0	2			
135	revise	2	2	2	6			
136	styles	9	4	4	17			
137	write/writing	56	22	26	104			
138	Total	135	54	45	234			
139								
140	essay	2	13	11	26			3
141	literature	12	0	0	12			
142	paragraph	2	4	0	6			
143	phrase	15	0	0	15			
144	sentence	6	5	0	11			
145	statement	3	0	0	3			
146	theme	8	0	0	8			

	A	B	C	D	E	F	G	H
1	Words	CCSS 11th & 12th Grade NOC	Remedial English 1 NOC	College Level NOC	Total Count per Word			UNIT #
147	thesis	1	3	1	5			
148	thesis statement	1	0	0	1			
149	topic	13	7	1	21			
150	words	33	2	1	36			
151	Total	96	34	14	144			
152								
153	analyze	21	3	4	28			2
154	argument	11	1	2	14			
155	assert	1	0	0	1			
156	clear	4	0	2	6			
157	cogent	1	0	0	1			
158	compare	1	1	0	2			
159	comparison	0	2	2	4			
160	contrast	0	3	2	5			
161	evaluate	9	0	3	12			
162	focus	4	0	1	5			
163	inquire	1	0	0	1			
164	logic	1	0	0	1			
165	persuasive	1	0	0	1			
166	reasonng	11	0	0	11			
167	research	10	2	17	29			
168	significant	2	0	0	2			
169	specific	23	0	1	24			
170	view	4	1	1	6			
171	Total	105	13	35	153			
172								
173	analogy	2	0	0	2			5
174	irony	1	0	0	1			
175	meaning	31	0	0	31			

	A	B	C	D	E	F	G	H
1	Words	CCSS 11th & 12th Grade NOC	Remedial English 1 NOC	College Level NOC	Total Count per Word			UNIT #
176	metaphor	1	0	0	1			
177	principle	2	1	3	6			
178	purpose	19	3	1	23			
179	rhetoric	1	1		2			
180	simile	1	0	0	1			
181	Total	58	5	4	67			
182								
183	drama	7	0	0	7			8
184	fiction	3	0	0	3			
185	literary	13	0	0	13			
186	narrative	7	1	0	8			
187	nonfiction	6	0	0	6			
188	plot	1	0	0	1			
189	stories	8	0	0	8			
190	Total	45	1	0	46			
191								
192	dictionary	5	0	0	5			4
193	information	17	2	4	23			
194	knowledge	22	0	0	22			
195	norm	2	0	0	2			
196	reference	5	2	2	9			
197	understand	11	0	0	11			
198	vocabulary	8	2	0	10			
199	Total	70	6	6	82			
200								
201	composition	0	1	1	2			7
202	format	5	3	1	9			
203	pattern	1	2	0	3			
204	plan	2	2	1	5			

	A	B	C	D	E	F	G	H
1	Words	CCSS 11th & 12th Grade NOC	Remedial English 1 NOC	College Level NOC	Total Count per Word			UNIT #
205	strategy	4	4	0	8			
206	structure	13	3	1	17			
207	syntax	6	0	0	6			
208	Total	31	15	4	50			
209								
210								
211								
212								
213	describe	0	4	1	5			6
214	identify	2	4	0	6			
215	implication	1	0	0	1			
216	interpret	3	1	0	4			
217	point	6	0	1	7			
218	reading	28	8	8	44			
219	Total	40	17	10	67			

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