# Identifying the Impact of Universal College Testing on State Academic Testing at the Eleventh Grade 

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# IDENTIFYING THE IMPACT OF UNIVERSAL COLLEGE TESTING ON STATE ACADEMIC TESTING AT THE ELEVENTH GRADE by 

Kristi N. Thompson - Gibbs
A Dissertation
Presented to the Faculty of The Graduate College of the University of Nebraska

For the Requirements of the Degree Doctor of Education

Major: Educational Administration

Under the Supervision of Kay A. Keiser, Ed.D.
Omaha, Nebraska
June 2014
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Abstract<br>IDENTIFYING THE IMPACT OF UNIVERSAL COLLEGE TESTING ON STATE ACADEMIC TESTING AT THE ELEVENTH GRADE<br>Kristi N. Thompson-Gibbs, Ed.D.<br>University of Nebraska, 2014<br>Advisor: Dr. Kay A. Keiser

The purpose of this study was to determine the effect of the Universal American College Test (ACT) administration as part of a required high school assessment program on eleventh-grade students' achievement on state level assessments. The study focused on four groups of eleventh-grade students. The first group, eleventh-graders who scored met on the 2010 NeSA Reading assessment and did not participate in the district implementation of the Universal ACT but took the 2010 ACT $(n=103)$. The second group, eleventh-graders who scored exceed on the 2010 NeSA Reading assessment and did not participate in the district implementation of the Universal ACT but took the 2010 ACT $(n=35)$. The third group, 2013 eleventh-graders who scored met on the 2013 NeSA Reading assessment and did participate in the district implementation of the 2013 Universal ACT $(n=108)$. The fourth group, 2013 eleventh-graders who scored exceed on the 2013 NeSA Reading assessment and did participate in the district implementation of the 2013 Universal ACT $(n=58)$. Overall, the results of this study suggest that Universal ACT administration does not significantly impact results on state level assessments, results obtained for students who met or exceeded state assessment expectations did not change after implementation of Universal ACT administration.

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## CHAPTER 1

## Introduction

President Barack Obama wrote a letter to the United States Department of Education in 2010 stating, "We must do better. Together, we must achieve a new goal, that by 2020, the United States will once again lead the world in college completion. We must raise the expectations for our students, for our schools, for ourselves - this must be a national priority." Expectations in schools have been evolving as cultural, societal, and political shifts have impacted the community's sense of learning and education. Recently, quality education has become strongly linked with assessments and student achievement, more specifically, standardized tests, providing data measuring the learning of each student and easily comparing the data to other students (Timmer, 2012). The data published has demonstrated an ongoing decline in achievement while continued global competition is needed.

According to the 2012 American College Testing (ACT) Research and Policy study, today more than ever educators and policymakers acknowledge that college and career readiness is an essential outcome for students graduating high school. However, how do we know that college and career readiness is important? How are schools measuring college and career readiness, and are the assessments accurately identifying the students who are college and career ready? According to Conley (2011), education seems to correlate with a host of personal benefits, from longer life to higher income. At a national level, too, education and income appear to go together. Timmer (2012) stated that the hope for successful societal improvement and global competition have often been the reason for more educational testing.

American public education faces increasing pressure to carry out its mission of preparing youth with the skills to compete in today's global economy and to participate constructively in a democratic society (Goertz, 2005). The persistent and authentic American dream is that superior performance can raise one's state in life and shape one's own future. In 1983 demand for highly skilled workers in new fields was accelerating rapidly. Areas identified as needing increased specialists were fields that included technology and computer-controlled equipment operators. The National Commission on Excellence in Education recognized that technology was radically transforming a host of occupations - including health-care, medical science, energy production, food processing, construction, and the building repair, and maintenance of sophisticated scientific educational, military, and industrial equipment. Getting the educational goal right is fundamental to successfully reforming the U.S. educational system so that the citizens can remain economically competitive. The relationships between skills development, workforce productivity, and economic growth demand that high school graduates be college and career ready so that they can acquire the requisite skills and knowledge they will need to meet the demands of the changing and increasingly competitive global economy (ACT Inc., 2013c).

Current ACT research shows that many of today's students are not on target to meet college and career readiness requirements. For example, if performance standards for the Common Core State Standards were set at a level comparable to ACT's College Readiness Benchmark - consistent with the goal of preparing students for college and careers - the majority of today's students would fail (ACT Inc., 2012b). The United States' failure to educate its students leaves them unprepared to compete and threatens
the country's ability to thrive in a global economy (Hanushek, 2012). A warning was recently issued by a task force sponsored by the Council on Foreign Relations, chaired by former New York City schools chancellor, Joel I. Klein and former U.S. Secretary of State, Condoleezza Rice. The task force said that the country "will not be able to keep pace - much less lead - globally unless it moves to fix the problems it has allowed to fester for too long" (Hanushek, 2012, p. 12).

The median income for a person who has not completed high school is roughly $\$ 25,000$; compared to the median income of person who completed their education with at least a high school credential, which is approximately $\$ 43,000$. Over a person's lifetime, this translates into a loss of approximately $\$ 630,000$ in income for a person who did not complete high school, compared to a student with at least a high school diploma (Rouse, 2007). Today's stakes are even higher than ever before for many of our nation's districts, schools, and teachers (Barksdale-Ladd, 2000). The need for quality education, high standards, and qualified work force continues to be of high priority. When comparing those who drop out of high school with those who complete high school, the average dropout costs the economy approximately $\$ 240,000$ more over his or her lifetime in terms of lower tax contribution, higher reliance on Medicaid and Medicare, higher rates of criminal activity, and higher reliance on welfare (Rouse, 2007).

Not surprisingly, current research shows that many students are not on target to meet college and career readiness requirements. Over time, the gains within the United States have been minimal. According to Hanushek (2012) there are 24 countries trailing the U.S.'s rate of improvement, and another 24 countries improving at a faster rate. The progress of the U.S. is not sufficiently rapid enough to allow it to catch up with the
leaders of other industrialized countries. Among states across the country, Iowa shows the slowest rate of improvement. The other four states whose gains were clearly less than those of the U.S. as a whole, ranked from the bottom, are Maine, Oklahoma, Wisconsin, and Nebraska (Hanushek, 2012). This is not good enough. To enable students to meet higher standards, a content-rich curriculum from preschool through high school is needed not only in English language arts (ELA) and mathematics, but also in science, history, geography, civics, and the arts. Educators have to acknowledge and recognize that the basic premise of high school designed a century ago was to educate about ten percent of the population. The model worked for approximately one third of the students, the realization now however, is to educate all, believes Joseph A. DiMartino, director of secondary school redesign for the Education Alliance at Brown University (Gehring, 2004).

Today more than ever, educators and policymakers acknowledge that college and career readiness is an essential outcome for students graduating high school (ACT Inc., 2013b). Our nation is in the middle of a fundamental movement in educational history. It will only be remarkable if there is success in implementing the standards and all students are prepared for college and careers when they graduate from high school (ACT Inc., 2013c). The focus has increased in recent years among states on the importance of preparing all students for college and work (ACT Inc., 2009). In June of 2010, a report stated that only six percent of the United States students were found to be performing at the advanced level in mathematics, a percentage lower than those attained by 30 other countries (Hanushek, 2012). The Common Core State Standards were published through
the work of the National Governors Association and the Council of Chief State School Officers, in partnership with ACT, the College Board, and Achieve.

The Common Core State Standards (CCSS) describe the skills and knowledge students will need to be ready to succeed in entry-level, credit-bearing academic college courses in two- and four-year institutions and workforce training programs for jobs that offer a wage sufficient to support a small family. The Common Core is intended to provide a consistent, clear understanding of what students are expected to learn in grades K-12 and focuses on ensuring that students graduate from high school ready for both college and career (ACT Inc, 2012a). Nearly every state has adopted the goal of college and career readiness for all students. At the end of 2011, 45 states had adopted the Common Core State Standards.

Even the 1983 National Commission on Excellence in Education identified knowledge, learning, information, and skilled intelligence as the new raw materials of international commerce and is spreading throughout the world as vigorously as miracle drugs, synthetic fertilizers, and blue jeans did earlier. Today, school districts must develop a coherent system of effective educational practices and steadily improve those practices despite the numerous distractions placed in their way (ACT Inc., 2012a). The goal is to ensure students in each grade and course are taught the knowledge and skills that will prepare them for the next grade and course, and that the entire learning sequence from preschool through high school prepares them for college, other post-secondary learning opportunities leading to skilled careers, and informed citizenship (ACT Inc., 2012a.)

Through developing higher standards and tests for measuring the degree to which student meet standards, a system has been put in place for holding students, teachers and schools accountable for assuring all students meet expected standards (Haertel, 1999). School-by-school, district-by-district, and state-by-state comparisons published in local newspapers coupled with tremendous pressure to produce high-test scores from administrators, school boards, and state legislators; make test results the focus of teacher's instruction (Barksdale-Ladd, 2000). New accountability approaches emphasize student performance over system inputs; focus on schools, rather than school districts as units of improvement; and use public reporting of student outcomes as rewards and sanctions as ways to motivate schools to alter their curriculum and instructional practices (Fuhrman, 1999). President Barack Obama: "Today, more than ever, a world class education is a prerequisite for success. America was once the best-educated nation in the world. A generation ago, we led all nations in college completion, but today, 10 countries have passed us. It is not that their students are smarter than ours. It is that these countries are being smarter about how to educate their students, and the countries that out-educate us today will out-compete us tomorrow" (Letter to the U.S. Department of Education, 2010).

In order to understand the role of testing in contemporary schools, it is important to examine the history of assessing and measuring student performance and the intersections of testing and education policy. The development and implementation of formal, standardized assessments has rapidly accelerated and overtaken education in America in the form of data-driven assessment and numerical quantification of student learning (Timmer, 2012). As a nation, the United States is in the middle of a pivotal
change. A common understanding of the importance of college and career readiness is imperative. Once the definition is clear, standards can be aligned and assessments can measure the success towards the goal.

## Conceptual Framework

A key component in improving student access to college and work has been the statewide administration of the ACT (Act Inc., 2009). Five states currently administer the ACT statewide to all public high school students: Colorado, Illinois, Kentucky, Michigan, and Wyoming. Colorado uses the ACT as the eleventh grade achievementbased assessment, that gives the state an indication of how well its public schools are performing at educating students at the K-12 level (ACT Inc., 2009). According to ACT research (2009, p. 7), "taking the ACT can encourage many students to explore their educational and career interests, define goals for further education, and beginning to think about how to reach these goals."

For many students, statewide administration of the ACT is the only administration of the ACT in which they will participate. Statewide administration of the ACT may remove barriers that previously prevented students from testing. These barriers include: cost of the test, Saturday testing, low or no college aspirations or awareness, and low selfconfidence (ACT Inc., 2009). In the years since statewide administration, improvements have occurred in the following areas: "student academic achievement, student readiness for college, the number of students considering college, and college enrollment and retention" (ACT Inc., 2009, p. 2). In addition, ACT (2009) reported that statewide administration has demonstrated improvement in the workforce, planning and career counseling information, as well as increased economic benefits to students and states.

## Problem Statement

The current educational legislation, No Child Left Behind (NCLB, 2001) requires each state to establish challenging academic standards for all students in reading and math and to test students annually to identify proficiency towards reaching identified standards. Accountability systems have been designed to create a sense of urgency about improving test scores. However, this has often had the undesirable effect of shortening educators' horizons so that they emphasize changes aimed at improving accountability ratings over the short run. These changes can include narrowing the curriculum to deemphasize subjects not tested in the current grade, and spending time preparing students on how to answer sample test questions (Koretz, 2010). These state level assessments are in addition to the tests that colleges and universities require students to take to prove ready. Students across the country are being compared against local, state, and national standards to identify at what level the students are college and career ready.

Ralston High School, a suburban school located in the Midwest, educates approximately 1000 students in grades $9-12$. The school experienced significant shift in student demographics during the school years between 2001-2002 and 2010-2011. Annually the state of Nebraska collects data regarding the demographics of districts and schools. The information includes achievement results for state assessments, norm referenced assessments, attendance, and mobility rates. According to the report, the percent of students eligible for free and reduce lunch increased from $22 \%$ in 2002 to $54 \%$ in 2011(SOSR, 2012). This shift in demographics created a need for the school district administrators to change instruction and assessment practices as it related to college preparation. The district experienced a decline in students taking the ACT, students
applying for college or financial aid, and an overall decline in assessment results (NDE, 2011). Ralston High School implemented a District Choice State Test (DCST) date allowing for weekday administration of the ACT. This study will examine the impact of such a program as it relates to student achievement on state assessments.

As a district, Ralston Public Schools (RPS) wants to ensure that students are prepared for successful transitions after high school. The effects of administering the "Universal ACT" needs to be evaluated to ensure that RPS is meeting the needs of all students. Expectations of increased rigor within courses, more tightly aligned curriculum, and increased college readiness are assumptions associated with a district choice state test (DCST) date. It is important for the courses to be aligned to state standards as well as ACT College and Career Readiness Standards. Students are expected to complete state assessments that measure academic achievement. In the state of Nebraska, students eleventh grade are given the Nebraska State Accountability (NeSA) tests in the area of writing, reading, math, and science (NDE, 2011). These results identify students as below standard, met standard or exceed standard. Juniors in high school are also asked to take a college readiness exam for entrance into local college and universities. What does the data show? Do the assessments identify student at the proficient level consistently? The educational demands are high, with the number of assessments increasing; it is imperative that educational leaders make sound decisions based on quality information. The purpose of this study will be to determine the impact of Universal ACT on students identified as scoring proficient or above on state reading assessments.

## Research Questions

The following research questions for this posttest study will be addressed and answered as part of this study:

Research Question \#1. Are 2013 ACT scores for students who met the 2013 NeSA Reading Standards congruent or different from 2010 ACT scores for students who met the standards on the 2010 NeSA Reading for the ACT subtests: English, Mathematics, Reading, Science and composite.

Research Question \#2. Are 2013 ACT scores for students who exceeded the 2013 NeSA Reading Standards congruent or different from 2010 ACT scores for students who exceeded the standards on the 2010 NeSA Reading for the ACT subtests: English, Mathematics, Reading, Science and composite.

Research Question \#3. Is there a significant correlation between the 2013 NeSA Reading scores and the 2013 ACT Reading Scores for students who met or exceeded 2013 NeSA Reading.

## Definition of Terms

Achievement. Achievement is defined as the level of accomplishment that a student demonstrates through the completion of school related tasks and activities.

Achievement gap. Achievement gap in education refers to the disparity in academic performance between groups of students. Achievement gaps can be found in grades, assessments, graduation rates, and college completion rates. Groups compared are often based on race, ethnicity, and poverty.

American College Test (ACT). The ACT test is a national college admission exam that measures academic competency in a variety of areas such as: mathematics, science, reading, and social studies.

ACT College Readiness Benchmarks. ACT College Readiness Benchmark is an indicator of whether a student has the knowledge and skills needed to have a reasonable chance of success in a particular college course. $($ English $=18$, Math $=22$, Reading $=21$, Science $=24$ ) The benchmarks represent the scores required for at least a $50 \%$ chance of achieving a B or higher grade or at least a $75 \%$ chance of a C or higher grade in entry level credit bearing college English Composition, Algebra, social studies, and biology courses.

ACT solutions. ACT solutions include the EXPLORE, PLAN and ACT as a multidimensional framework focused on the attainment of college and career readiness of students, as measured by the ACT college readiness standards.

Annual yearly progress (AYP). AYP is the measure by which schools, districts, and states are held accountable for student performance under Title I of the No Child Left Behind Act of 2001 (NCLB), the current version of the Elementary and Secondary Education Act (NCLB, 2001).

College and Career Readiness. The common core definition of college and career ready is the ability to succeed in entry-level credit bearing college courses or workforce training programs.

College Retention Rate. College retention rate, according to the University of Nebraska at Omaha (2010), is the percent of students entering each fall as first-time fulltime degree-seeking students who return as second-year students.

District Choice State Test (DCST). ACT established this program to facilitate the administration of The $\mathrm{ACT}{ }^{\circledR}$ college readiness assessment for eleventh grade students to participate in a standardized, curriculum-based, achievement college entrance examination or a job skills assessment during a pre-determined test administration window during the academic school day. In accordance with the district's policy, this assessment opportunity is available to all students deemed eligible by the district (ACT Inc., 2007a).

English Language Arts (ELA). ELA is an acronym used to identify standards in the area of English Language Arts, typically reading, writing, speaking, and listening.

High Stakes Testing. High stakes testing is the use of an assessment to determine certain consequences such as graduation and grade retention for students and pay raises and job retention for educators (Jacob, 2007).

National Assessment of Educational Progress (NAEP). NAEP is the largest nationally representative and continuing assessment of what America's students know and can do in various subject areas. Assessments are conducted periodically in mathematics, reading, science, writing, the arts, civics, economics, geography, U.S. history, and beginning in 2014, in Technology and Engineering Literacy (TEL). The Commissioner of Education Statistics, who heads the National Center for Education Statistics in the U.S. Department of Education, is responsible by law for carrying out the NAEP project. The National Assessment Governing Board, appointed by the Secretary of Education but independent of the Department, sets policy for NAEP and is responsible for developing the framework and test specifications that serve as the blueprint for the assessments.

National Association of Secondary School Principals (NASSP). NASSP has been in existence since 1916, and is the preeminent organization of and national voice for middle level and high school principals, assistant principals, and aspiring school leaders from across the United States and more than 45 countries around the world. The mission of NASSP is to promote excellence in school leadership.

National Center for Educational Achievement (NCEA). NCEA is a department of ACT, Inc, a not-for-profit organization committed to helping people achieve education and workplace success. NCEA builds the capacity of educators and leaders to create educational systems of excellence for all students. They accomplish this by providing research-based solutions and expertise in higher performing schools, school improvement, and best practice research that lead to increased levels of college and career readiness

Nebraska State Accountability (NeSA). NeSA is the State of Nebraska mandated test in the areas of reading and mathematics for all students in grades $3,4,5,6$, 7,8 , and 11 . The writing assessment is administered to students in grades 4,8 , and 11 . The science assessment is administered to students in grades 5,8 , and 11 . These tests are considered a standardized test aligned with the Nebraska Standards of mathematics, reading, writing and science.

Nebraska Performance Accountability System (NePAS). NePAS is the system in intended to inform educators, parents, school board members, community members and policymakers about the learning progress of Nebraska schools and school districts. For each school district and NePAS "grade-level configuration" within a district, the State of the Schools Report [SOSR] will display the calculations of scale scores for all

NeSA performance indicators to include status, growth, and improvement. Grades 3 and 11 will not include growth. Graduation rate will be calculated as a percentage and will include a display of school district enrollment for grades 9-12. Participation will be indicated as Met or Not Met. Except for participation, each indicator for the district and each NePAS grade-level configuration within the district will receive a state ranking.

## Partnership for the Assessment of Readiness for College and Careers

(PARCC). The Partnership for Assessment of Readiness for College and Careers (PARCC) is a consortium of 18 states plus the District of Columbia and the U.S. Virgin Islands working together to develop a common set of K-12 assessments in English and math anchored in what it takes to be ready for college and careers. These new K-12 assessments will build a pathway to college and career readiness by the end of high school, mark students' progress toward this goal from 3rd grade up, and provide teachers with timely information to inform instruction and provide student support. The PARCC assessments will be ready for states to administer during the 2014-15 school year.

Postsecondary institutions. Postsecondary institutions are two year or four year college, university, trade or technical school.

Programme for International Student Assessment (PISA). PISA is a triennial international survey, which aims to evaluate education systems worldwide by testing the skills and knowledge of 15 -year-old students. To date, students representing more than 70 economies have participated in the assessment.

Progress in International Literacy Study (PIRLS). PIRLS is an international comparative study of the reading literacy of young students. PIRLS studies the reading achievement and reading behaviors and attitudes of 4th-grade students in the United

States and students in the equivalent of 4th grade in other participating countries. The first administration of PIRLS was in 2001, and included 36 education systems (including countries and subnational entities, such as Canadian provinces and Hong Kong, a Special Administrative Region of the People's Republic of China). It was followed five years later by the second administration in 2006 to students in 45 education systems. The third and latest administration of PIRLS was in 2011, with 53 education systems participating at grade 4. PIRLS is coordinated by the International Association for the Evaluation of Educational Achievement (IEA). (Institute of Education and Science).

Race to the Top (RTTP). RTTP is a $\$ 4.35$ billion United States Department of Education initiative created to spur innovation and reforms in state and local district K-12 education. It is funded by the Education Recovery Act as part of the American Recovery and Reinvestment Act of 2009 and was announced by President Barack Obama and Secretary of Education Arne Duncan on July 24, 2009. States to advance reforms around four specific areas: adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy; building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction; recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most; and turning around our lowest-achieving schools.

Smarter Balanced Assessment Consortium (SMARTER). SMARTER is a state-led consortium working to develop next-generation assessments that accurately measure student progress toward college- and career-readiness. Smarter Balanced is one of two multi-state consortia awarded funding from the U.S. Department of Education in

2010 to develop an assessment system aligned to the Common Core State Standards (CCSS) by the 2014-15 school year.

Standardized Test. Standardized tests are any examination that is administered, and then scored in a predetermined, standardized fashion (Popham, 1985).

Trends in International Mathematics and Science Study (TIMSS). TIMSS provides reliable and timely data on the mathematics and science achievement of U.S. 4th- and 8th-grade students compared to that of students in other countries. TIMSS data have been collected in 1995, 1999, 2003, 2007, and 2011. The next data collection is in 2015.

Universal ACT. For the purpose of this study, Universal ACT refers to the district's implementation of the ACT approved DCST with the inclusion of test preparation through an outside consultant John Baylor. Universal ACT refers to the weekday assessment of all juniors in the study district during the month of April of each identified school year beginning in 2011.

## Assumptions

This study assumed that the large number of student scores analyzed will provide findings and conclusions for the research site. It also assumed that the students taking the assessments are doing their best work, and that the assessments given are valid and provide an accurate portrayal of the students' performance. The underlying assumption of this study is that high school curriculum aligns with Nebraska State Standards and the ACT College Benchmark Standards, and that teachers are effectively teaching those standards within their courses to the best of their ability.

## Limitations

Several limitations deserve note. A possible contribution to outcome variance in this study may be due, in part, to the level of preparation for the NeSA Reading assessment and the ACT. It was possible that student variables not addressed in this study affected individual results and thus overall cohort results on the NeSA and the ACT. Individual student variances in ability, comfort, and confidence in displaying learning of the standard indicators were not addressed in this study. School level variables not addressed in this study possibly affected individual results. The research study relied heavily upon the ability of the teachers to administer the NeSA assessments as well as their ability to adhere to the standardized administration of the ACT. An additional limitation to this quantitative study was that the study looked at two different cohort groups of students including results on multiple assessments. Several teachers in the research study engaged students in various testing format preparatory activities that may have affected the results on NeSA or ACT.

## Delimitations

This study was delimited to a suburban public high school serving roughly 1,000 students in grades 9 through 12 in a mid-western metropolitan community. Student participants were delimited to eleventh grade students achieving proficiency on the NeSA Reading assessment during the 2012-2013, and the 2011-2012 school years.

Pretest measures for this study were based on the participants' scores from the Spring 2010 NeSA Reading and 2010 ACT scores as compared to the participants' scores from the Spring 2013 NeSA Reading and 2013 ACT scores.

## Significance

This study has the potential to contribute to research, practice, and policy. It is of particular interest to researchers, school personnel, and policy makers who are charged with the responsibility of identifying assessment practices locally and at the state level. Currently NeSA, the Nebraska state assessment, is intended to identify proficient students in districts and schools across the state. Across the country, colleges and universities use the ACT. The state of Nebraska uses the ACT to identify students' readiness to take entry-level credit-bearing college courses.

Based on the outcomes of this study the research district may choose to change, revise, or update current assessment practices. State level policy will be impacted through this study. If the results show a positive impact on student achievement across all levels of assessments, a discussion should be generated to consider statewide implementation of the Universal ACT. Course requirements and content may be altered, updated, or changed due to the results of this research study. Based on the outcomes of this research study, the state of Nebraska may choose to further investigate, administer, or implement the use of Universal ACT versus that of the NeSA. This could also lead to the adoption of college and career readiness standards aligned to ACT.

## Outline of the Study

Chapter 2 includes the literature review relevant to this research study. This section provides a comprehensive perspective on the history of state standards and assessments. A summary of the "Nation at Risk," "America 2000," "No Child Left Behind," and the newly created Common Core State Standards is also included. The study continues to summarize measures of college and career readiness in the United

States, and the multi-faceted nature of the influences upon the results and the use of these results to identify achievement levels. Chapter 3 describes the research methodologyits design and procedures used to gather and analyze the data of the study.

## CHAPTER TWO

## Review of Literature

## History of State Standards

President Barack Obama stated in his State of the Union Address on January 25, 2011, "We know what it takes to compete for jobs and industries of our time. We need to out-innovate, out-educate, and out-build the rest of the world." This familiar rhetoric has transcended presidential speeches throughout history - Johnson, Reagan, H.W. Bush, Clinton, and G.W. Bush and most recently with President Obama. Educational reform has been evolving and has now created a fundamental shift in the uses of large-scale assessments; this shift has been underway in the U.S. for 40 years. Beginning with the Elementary and Secondary Education Act (ESEA), the federal government assumed a more involved position in our nation's public education system. Prior to the ESEA, the Federal government viewed education to be within the exclusive control of state and local government (James, 2011). Title I of ESEA was developed as an integral part of President Johnson‘s War on Poverty. Title I provided for assistance grants to schools with a high concentrations of children from low-income families and required funds be used to meet the special educational needs of educationally deprived children residing in low-income areas (James, 2011).

Over the decades during which test-based accountability has developed, the pressure exerted on educators to improve scores has increased dramatically (Koretz, 2010). Test-based monitoring and accountability have largely supplanted low-pressure, primarily diagnostic, uses of test scores. The need for improved testing comes from a fear that the United States is failing its citizens educationally. Throughout history the
desire to improve educational outcomes has sparked reform initiatives. The modern day education reform movement can trace some of its roots from Russia's launch of Sputnik, the first successful man-made space orbiting satellite in 1957 (US Department of Education, 2010).

A Nation at Risk. In the years following World War II, large-scale testing was generally a low-stakes enterprise. Many states left it to districts to decide whether and how to test students. For the most part, testing was seen as a diagnostic exercise, and scores had no serious consequences for most students or teachers. This state of affairs began to change in the 1960s with the establishment of the National Assessment of Educational Progress (NAEP) and the charge to monitor the achievement of the nation's youth and the imposition of test-based evaluation requirements for programs funded under Title I of Elementary and Secondary Education Act (Koretz \& Hamilton, 2006). Substantial change began with the minimum-competency testing movement of the 1970s which initiated on a large scale what Popham, Cruse, Rankin, Sandifer, and Williams (1985) later identified as measurement-driven instruction: the use of testing to generate direct incentives to change behavior. Another powerful wave certainly entered in 1981 when the National Commission on Excellence in Education was convened to "examine the quality of education in the United States due to the widespread public perception that something was seriously remiss in the educational system. April 1983 marks the start of the current education reform movement; after more than 20 years, the reform activated by this report persists (Ahearns, 2000).

The standards-based reform movement began in the late 1980s and started with the idea of specifying the content of instruction. The Secretary of Education, T.H. Bell,
commissioned the report, A Nation at Risk, in 1981. The purpose of the report was to define the problems with the American education system and to provide solutions. Specifically identified within the report were the following four aspects of the educational process: content, expectations, time, and teaching (Gardner, 1983). The findings identified content as the "stuff" of education. At the time, it was widely believed that the high school curriculum had been diluted and watered down. From 1976-1981 the report identified that $25 \%$ of credits earned were general and included physical education, remedial courses, and personal service and development.

Expectations, defined by the report as the level of knowledge, abilities, and skills school and college graduates should possess. These skills and abilities have been redefined over time to include what is commonly understood as College and Career Readiness (CCR). The report identified a number of deficiencies: United States students do not take enough higher level courses, students do not spend enough time on course work, and minimum competencies set by many states and districts are far below and creates the minimum as the maximum. Findings regarding time indicate that students in the United States spend much less time on school work, the time spent is used ineffectively, and schools do not promote or expect significant enough changes.

The final finding impacted the core of American education, the teachers. The report stated that "not enough of the academically able students are being attracted to teaching; that teacher preparation programs need substantial improvement; and that the professional working life of teachers is on the whole unacceptable; and a serious shortage of teachers exist in key fields" (Gardner, 1983, p. 10). Driving the educational reform efforts of the last 40 years has been the four key findings within the National

Commission on Education's A Nation at Risk. As the nation began to address the concerns, an important contribution was made when the National Council of Teacher of Mathematics (NCTM) decided to spell out "content standards" of mathematics instruction, including what students should know and be able to do in mathematics (Barton, 2006). Content standards became prevalent in other curriculum areas, the first step in addressing the content concerns identified in A Nation at Risk.

The report spawned a new education era of achievement testing and so-called standards-based education reform and ultimately led to the enactment of the Improving America‘s Schools Act of 1994 (IASA), which extended for five years the authorizations of appropriations for the programs under the ESEA. IASA strongly encouraged states to address the educational needs of all children, not just the disadvantaged and children at risk of school failure. Furthermore, IASA required schools to develop performance standards and accountability systems to identify those schools that were not providing students a high-quality education (James, 2011). The No Child Left Behind Act was to many the next logical step in the standards-based assessment and accountability era of education.

The standards-based reform movement, that in the beginning, focused heavily on defining content of what was to be taught morphed into a predominantly test-based accountability system, a system with a range of sanctions that progressed to closing down schools (Barton, 2006). Since then, the nation has seen three or four waves of test-based reform, and the form of test based accountability has varied markedly both across jurisdictions and over time (Koretz \& Hamilton, 2006).

America 2000. America 2000 was a precursor to the current No Child Left Behind (NCLB) legislation, emphasizing a standardized curriculum that would be teacher-proof, a nod to the threat of incompetence indicated by A Nation at Risk (Timmer, 2012). The central tenet of the standards-based reform movement is that stakeholders in an education system agree upon certain content standards, the expectations for what students should know and be able to do in a subject area (Jennings, 1998). State and national assessment results show that student performance in many elementary schools had improved over the last decade. Some researchers have argued that a portion of these gains can be attributed to the pressures generated by state accountability systems that have set standards, focused attention, and created stronger incentives for improved performance (Barksdale - Ladd, 2000).

Standards address testing for a variety of purposes: to estimate the knowledge and abilities of individual students at a point in time; to compare students and schools in "norm-referenced" systems; to sort students into tracking arrangements; to promote students to the next grade; to award student diplomas; and to elect students "gatekeeping" for college; graduate schools, professional schools and military (Barton, 2006). Adherents to the movement assert that establishing standards makes the system more effective and coherent, thereby supporting student learning and improving achievement (Ananda, 2003).

No Child Left Behind. No Child Left Behind (2001) has been identified as a landmark in education legislation. Legislation that identified the goal to improve education for children traditionally left behind in American schools. No Child Left Behind, to some, instead became an obstacle in the path to high-quality public education.

Designed to create a public education system where all children could experience academic success, NCLB has fallen short of the expectations and objectives. Not only has NCLB failed to close the achievement gap between minorities and non-minorities and between those living in poverty and their more affluent counterparts; it has also had negative consequences for the nation's schools and districts (James, 2011).

The primary purpose underlying standards-based reform, the largest K-12 education policy of the past 20 years is coherence (Smith \& O’Day, 1991). A description of systemic reform identifies instructional coherence as a necessary component for widescale educational change. In that vision, coherence referred to a rigorous curriculum framework linked to instructional practices aligned to assessments of student learning. Through NCLB, states have adopted their own standards, created state level assessments linked to those standards, and believe that teacher instruction matched the intended standards and assessments. On the political front, almost all governors called for accountability on the part of teachers and educators through standards and assessment based on those standards (Barksdale-Ladd, 2000). NCLB included a mandate for each state to develop assessments tightly aligned to the established content standards so that schools could be held accountable to expectations for high levels of student achievement (Case, 2004). By the 2005-2006 school year, each state implemented rigorous annual testing programs in reading and mathematics for students in grades 3 through 8 and in one high school grade. By the 2007-2008 school year, students were assessed in science at least once in grades 3 through 5, once in grades 6 through 9 , and once in grades 10 through 12 (United States Department of Education, 2003).

Established as state education policies, standards were placed in the hands of teachers while, simultaneously, hundreds of thousands of dollars were spent on the development of specific tests designed to measure each standard (Barksdale-Ladd, 2000). In the beginning of NCLB, states were alone in the development of content standards, instructional practices, and testing companies began developing the assessments to be used to measure the attainment of the content standards. Additionally, states stated to track graduation rates as a part of NCLB. Graduation rates varied greatly from state to state and often even from district to district. These variations made it difficult to make comparisons. The National Association of Secondary School Principals (NASSP) became involved and created a national commission that included policymakers, researchers, and practitioners to study differing graduation formulas and to recommend a uniform way of tracking students as they moved in and out of school (Levin, 2007).

## Assessment

Standardized testing in the public schools has been around a long time, however, the use of standardized tests have changed from time to time, and the quantity has exploded in volume as state laws first, and then federal laws, required testing for school accountability (Barton, 2006). When discussing assessments is it important to understand horizontal alignment, the degree to which an education system's accountability assessments match content and performance standards (Porter, 2002). States and districts worked to begin horizontal alignment. This alignment was the beginning stages of ensuring all students received the same level of educational experiences. The U.S. Department of Education Secretary, Rod Paige, stated in 2003 that assessments must
measure the depth and breadth of the state academic content standards for a given grade level.

Assessments concretely embody the standards, providing an impetus for educators to teach the content to which students will be held accountable (Case, 2004.) For an accountability system to provide valid and reliable data about student achievement, the assessment must be aligned to the standards established by the stakeholders and decision makers (La Marca, 2000). Results from assessments must demonstrate that the overall student population and designated subgroups meet the state's requirement for Adequate Yearly Progress (AYP) toward proficiency in each subject area (Case, 2004).

It is important to understand the history of policy to define college and career ready (CCR) students. Moving multiple sets of state standards to common standards focused on college and career readiness for all students has been a monumental moment in America's educational history (ACT Inc., 2013c). The United States Department of Education (USDE) supported the development and use of a new generation of assessments aligned with college and career ready standards (2010). College and career readiness, defined through ACT research, is the level of preparation a student needs to be ready to enroll and succeed, without remediation, a first year, credit-bearing course at a two or four year institution, trade or technical school (ACT, Inc., 2013c).

There is an overwhelming feeling across the country that every student should graduate from high school ready for college or a career, regardless of their income, race, ethnic, language background, or disability status (USDE, 2010). A common expectation in the skills and knowledge that all students need to learn by the end of high school to be ready to succeed in college or a career would be a first for our nation. Timmer (2012)
theorizes that if students can excel on tests, one would know that they have learned and are therefore educated and capable of productively engaging in society. In order to have common expectations of what is to be learned by the end of high school, a nationally developed common set of expectations or standards need to be in place. These content standards need state level adoption and local level implementation. One set of national standards would replace the countless number of state and locally developed standards currently in existence.

## Common Core State Standards

The Common Core State Standards (CCSS) were developed after the realization that the nation had too many locally developed standards. The adoption of college and career ready content standards would be the first step in ensuring that students graduate from high school ready for college and career regardless of their geographic location, ethnicity, race, or income level (ACT Inc., 2013b). American College Testing's work guided the development of the Common Core State Standard's definition of college and career readiness. Studies conducted used a linking analysis, confirmed that the performance standards of college and career readiness, the new CCSS, are competitive with the highest performing nations in the world (ACT Inc., 2013c). Therefore the nationwide adoption of CCSS would assume that the students graduating from high school would be prepared to compete in a global market.

States' requirement to administer annual assessments to meet federal requirements of No Child Left Behind (2001) will reach a benchmark in 2013-2014, that all students must reach a "proficient" level on state tests. As the nation strives to have all students graduate from high school ready for college and other post-secondary learning
opportunities, confronting the reality that means an acknowledgement of a far reach for achieving the goal (ACT Inc., 2013a).

## College and Career Readiness

Contemporary discourse regarding public education in America focused on failing schools that leave students ill-prepared to enter the global marketplace and maintain America's standing in the world as an economic power (Timmer, 2012). Educational policy emphasized testing and assessment, placing high-stakes consequences for schools and teachers based on student performance, which is the result of decades of influence from a variety of fields (Timmer, 2012). The United States Department of Education changed the level of control and guidance provided to states in determining standards and proficiency and how those standards are met. Under IASA, the federal/state relationship regarding accountability could be characterized as "loose -loose," meaning the federal requirements for goals and the means to achieve those goals permit a great deal of state discretion.

No Child Left Behind (2001) created a "loose-tight" relationship, where federal government was loose on state goals and the definition of proficiency, but tight on the means by which states would work towards achieving those goals (Wilhoit, Steiner, \& Morton, 2010). States now have the opportunity to move toward the model that is "tightloose," whereby the states advance the goal of college and career readiness for all students; have the latitude to determine how best to meet that goal; and establish consequences should the goal(s) not be attained (Wilhoit, Steiner, \& Morton, 2010). As America administers over 100 million standardized assessments each year, a number only growing, educational testing is more powerful than ever (Timmer, 2012).

Condolezza Rice warned, "The United States' failure to educate its students leaves them unprepared to compete and threatens the country's ability to thrive in a global economy" (Hanushek, 2012, p. 10). Human capital will determine power in the current century, and the failure to produce that capital will undermine America's security (Hanushek, 2012). The current policy landscape provides states with the opportunity and responsibility to take the lead in designing robust accountability systems focused on driving all students to college and career readiness and beyond (Wilhoit, Steiner, \& Morton, 2010). Joel Klein, co-chair for the Council on Foreign Relations, stated, "Measured against global standards, far too many U.S. schools are failing to teach student the academic skills and knowledge they need to compete and succeed" (Hanushek, 2012, p. 3). Research suggested that policy makers believe a single test can identify whether a student is ready for college or the workforce.

High school alone does not prepare students for future work experiences (Brand, 2003). When students have the opportunity to take rigorous core courses and the course achievement is reliably assessed, the probability of being ready for college and career increases dramatically (ACT Inc., 2012d). Many students do not see the connection between school, careers, and the future. Today, many careers require experience beyond high school, not necessarily a four-year degree, however specific training or skills need to be acquired. A skilled and flexible workforce is essential to building and maintaining a strong and dynamic economy (Brand, 2003.) Academic skills are not enough to guarantee a good career. Students also need technical, occupational, and employability skills. The past division between preparation for college and preparation for work has become false.

Over the last two decades, policymakers struggled with the realization that far too few high school graduates are adequately prepared for college and the workplace. Many graduates leave the postsecondary pipeline before their goals are met, reducing their chances for earning a decent living and compromising our nation's position in the competitive global marketplace (AASCU, 2013). Recent studies document the gap between high school and college academics. Despite good efforts and progress over the past 20 years, a significant disconnects between the K-12 and a postsecondary sector exists, making the transition between high school and college anything but seamless (AASCU, 2013). Data indicate that student motivation is low and getting worse (Baines \& Stanley, 2004). More than half of today's high school graduates will not be ready for college-level math or science (Baines \& Stanley, 2004). Students prepared to undertake entry-level, credit bearing college courses without remediation and/or are prepared for a career that offers a competitive salary above the poverty line and offers opportunity for advancement is growing only slowly (Wilhoit, Steiner, \& Morton, 2010).

Skills necessary for success. Whether bound for a job or college, all students need high-level academic knowledge and skills associated with college preparatory studies (Sommerville \& Yi, 2002). The transition from high school into college or the workforce is a key turning point in the lives of young people. Regardless of chosen careers or academic paths after high school, young people must have the capacity to grapple with complex problems in order to maximize potential for professional and personal success. Far too many students are not receiving an education that adequately prepares them for life following high school (Kline \& Williams, 2007).

College readiness skills. Taking the right number of courses is no longer enough to guarantee graduates will be prepared for life after high school. Among students who prepare for college by taking four years of English, and at least three years of math, science, and social studies, only a quarter meet all four of the ACT College Readiness Benchmarks (ACT Inc., 2007a). College instructors state they spend a significant amount of time teaching material that should have been learned in high school (Hart, 2005). According to a study conducted in 2005 , Hart states specific areas students identified deficits included: oral communication skills, science preparation, math, ability to do research, quality of writing. The increasingly close relationship between college readiness and readiness for citizenship and work indicates the value of the goal of college readiness for all (Dougherty, 2006).

Career readiness skills. Many students who enter the workforce immediately upon high school graduation need at least the same level of skills and knowledge as students entering college. Universities and employers seek the same core abilities (Kline \& Williams, 2007). United States companies are competing in the global marketplace; workers must transition from an industrial to a knowledge-based economy. The future competitiveness of the U.S. business community will be dependent on America's ability to produce highly skilled workforce (Casner-Lotto, 2011). Employers report new entrants to the workforce need not only the basic skills in reading, writing, and mathematics, but also in the 21st century business world. Possessing a range of applied skills directly related to the workplace is critical to the individual and collective success of businesses within the U.S. Casner-Lotto (2011) believes that it is imperative for young people to seek higher education. When business officials were asked to rank skills in
terms of their importance in the workplace, professionalism, teamwork, and oral communication were at the top of the list.

## New Age Assessments

Standardized tests are currently the primary methods of assessment used in schools, in order to accurately assess students, appropriate tests must be used and the results must be interpreted correctly (Timmer, 2012). New assessment systems will replace the NCLB-mandated assessments used in participating states and will begin to identify college and career readiness of students across the country. The United States government commissioned a grant program focused on the accountability system. Grants were created to encourage the development of large-scale new age assessment systems. Two such systems were created, Partnership for the Assessment of Readiness for College and Careers (PARCC) and Smarter Balanced Assessment Consortium (SMARTER.) States across the country, after adopting the CCSS, signed on with one of the assessment consortiums and began to develop and implement the systems.

Partnership for the Assessment of Readiness for College and Careers (PARCC) is a formative assessment system envisioning an assessment model that tests students quarterly throughout the course, rather than once at the end of the year. Each of the quarterly assessments will be included in a summative score for accountability determinations. PARCC testing will require tests in each grade 9-11 and is a computerbased assessment. A distributed approach is held within the PARCC system to assess for accountability, meaning the assessments are distributed throughout the entire school year (Aspen, 2013).

Smarter Balanced Assessment Consortium sticks to a more traditional end of year testing approach, with summative assessments administered during the last 12 weeks of the school year and requires testing only once in high school (Aspen, 2013). Computer adaptive assessments will be used in the SMARTER system. The SMARTER Balance approach to assessments combines end of year, computer adaptive, summative assessments for accountability with optional, computer-delivered interim/benchmark and formative assessments that will not be used for accountability (Aspen, 2013).

In the new age of common standards aimed at creating more college and career ready students, higher standards, tougher courses, and more evaluations are strongly supported. Recent high school graduates, college instructors, and employers strongly support measures that would raise the expectations for high school students, test students more rigorously, and require students to take more challenging courses (Hart, 2005). In order to achieve these results, school systems must do three things: 1) adopt high but attainable college readiness standards that minimizes the odds that students will need remediation should they attend college; 2) make the K-12 curriculum based on the identified standards the default curriculum for all students regardless of background; 3) get students on track to reach standards in elementary school (Dougherty, 2006).

American College Testing believes that students need to begin planning for college early, by taking more rigorous courses, and monitoring individual progress toward becoming college and career ready. By setting ambitious college-readiness standards and goals school systems have a powerful strategy for achieving excellence (Dougherty, 2006). School systems determined to close the achievement gap and provide
all students with a strong education, take the goal of college and career preparation seriously (Dougherty, 2006).

The American College Testing process includes assessments for students in grades 9-12. The first of these assessment is the EXPLORE, typically administered to students in ninth grade. The PLAN is the next assessment in the sequence; this assessment is typically administered to students in tenth grade. The final assessment is the ACT, this assessment is used most commonly as a college entrance exam and can be taken in eleventh grade, students are able to take the assessment as many times as necessary to improve a score. The EXPLORE, PLAN, and ACT help students plan for further education and explore career options based on skills, interests, and aspirations (ACT Inc., 2012a).

The Benchmark for EXPLORE and PLAN provide indicators of students' likely success in college by the time they graduate from high school, assuming maintained levels of academic work throughout high school. The Benchmarks allow students and schools to monitor students' progress and determine whether they are on target for being college and career ready by the time they graduate (ACT Inc., 2012d). Students who are monitored early before taking the ACT are more likely to be college and career ready and are more likely to meet three or all four of the ACT college readiness benchmarks than students who are not monitored early. Early monitoring is associated with increased college enrollment and with educational achievement and persistence in college (ACT Inc., 2012a).

High stakes testing typically costs up to $\$ 50$ billion per year, and testing alone has not impacted student achievement, and has changed the focus of American public schools
(Baines \& Stanley, 2004). This change has moved schools from content and teaching to testing and reporting. States and districts, in order to meet the prohibitive costs of testing, pay for the assessments from funds originally designated for hiring teachers, fixing leaking roofs, or buying new books (Baines \& Stanley, 2004). The next-generation accountability systems establish performance objectives for schools and districts aligned to college and career-readiness, according the CCSS. The performance objectives anchored in college and career ready standards, include the knowledge and ability to apply the knowledge necessary for future success. The objectives drive the accountability system. Given that almost $90 \%$ of new jobs in occupations with both high growth and high wages require at least some postsecondary training, college-and career readiness must be the foundation of next generation state accountability systems (Wilhoit, Steiner, \& Morton, 2010).

For successful implementation of college and career readiness standards and assessments, school leaders must be prepared to guide discussions on the priorities set by the district's written curriculum, and on mastery of that curriculum in one grade prepares students for subsequent grades (ACT Inc., 2012b). Classroom teachers must work together in collaborative teams focused on improving their instructional practices. According to ACT (2012b), setting ambitious school improvement goals, aimed at placing all students on a path to high school graduation prepared for college, skilled career training, and informed citizenship is the new reform effort. School leaders must ensure systems are in place to identify students who need additional attention and support, either because they are performing below grade level or because they have
demonstrated early mastery of the curriculum and are ready for extended learning opportunities.

Successful college completion is not linear for many students; there are a significant number of qualified students who move through multiple postsecondary experiences as they pursue educational goals (ACT Inc., 2012c). Students take performance-based assessments for accountability to measure readiness for college and careers, currently these assessments are not common across states and are not aligned to the Common Core State Standards. Test scores alone cannot suffice to evaluate schools or teachers (Koretz, 2008). The primary purpose of a standardized achievement battery is to provide information that can be used to improve instruction. Though standardized achievement scores cannot and should not replace teacher observations and classroom assessment information, they can provide unique supplementary information. No assessment method or instrument can supply the full range of information required to evaluate the entire school program, or even the complete academic curriculum. Standardized test scores alone should not be used to evaluate the entire school program because achievement batteries are not designed to cover the full range of objectives that make up the school curriculum (Hoover et al., 1993, pp. 7, 9).

A high school diploma has gone from being a valuable, but optional, asset in the labor market to the very minimum educational requirement for entry-level employment. Completing high school is now seen as essential for anyone seeking additional education or training, with the exception of the lowest paying and most menial jobs (Huerta, 2003). The new theory of action that tightly connects each element of accountability system, replacing the existing theory of action that measuring and reporting results alone will
generate better results (Wilhoit, Steiner, \& Morton, 2010). College and career readiness rests on both rigorous content knowledge and the ability to apply that knowledge (Wilhoit, Steiner, \& Morton, 2010).

Policymakers want to increase college graduation rates, and believe increased rates would signify improvement of college and career readiness at the high school level. Aligned local curriculum content, rigor, and learning progressions with the ACT College Readiness Standards and the CCSS will increase college and career readiness of students (ACT, Inc. 2012c).

## Universal ACT

Ralston Public Schools (RPS), has experienced a shift in student population over the last 10 years, the percentage of students qualifying for free and reduced lunch has increased from $22 \%$ in 2002 to just over 53\% district-wide in 2012-2013. This shift has created a need to support students and families differently. In an effort to increase post secondary options for students, the district began to offer "Universal ACT" access. During the spring of 2010 and 2011 RPS paid for any junior to take the ACT on the nationally recognized April, Saturday testing date. The district saw an increase in participation in the assessment, however, realized there were limitations to a Saturday test offering. In the spring of 2011 and again in the spring of 2012 the district requested to become a District Choice State Test (DCST) location, which meant that RPS students would be granted the opportunity to take the test on a weekday at Ralston High School (RHS). In August of 2012, the district received an affirmative response to the request and on April 24, 2012 juniors at RPS participated in the first DCST.

The intent of implementing the DCST was to provide increased access to postsecondary opportunities and for students to be prepared for college courses. During the fall of 2009, Ralston High School administration approached the Ralston Board of Education and Central Office Administration asking for support to pay for all Ralston High School juniors to take the ACT. The proposal stated the high school wanted to increase the opportunities for students. Also contained in the proposal was a request to contract with John Baylor for ACT test prep sessions. The sessions began in the spring of 2010 in preparation for the ACT. Juniors were provided an opportunity to take the ACT for free - the district would cover the cost for a Saturday test session and staff would help students apply for free tests through ACT if they qualified.

Results from the first round of district paid ACT demonstrated a $10 \%$ increase in participation. The scores demonstrated a slight decline, as was predicted with more students taking the assessment. After further discussion, the district decided to continue to support the Universal ACT processes. During the fall of 2010, Ralston High School continued to contract with John Baylor for test prep support. Juniors were encouraged to participate in the 2011 spring ACT. The district continued to support the initiative by paying for any junior who agreed to participate. The results of the 2011 Universal ACT process demonstrated an additional increase in participation. As a district Ralston increased from $77 \%$ to $87 \%$ of juniors taking the ACT, this is above the state average of district participation (NDE, 2011).

In the spring of 2011, district administrators advocated to the State Board of Education, the Commissioner of Education, and ACT to be a part of the Nebraska Pilot that included eight districts and a District Choice State Test date for the ACT. On all
accounts Ralston was denied participation due to size of the building, the timing of the request as well as the pilot school projects' lack of a need for increased involvement. Ralston High School wanted to increase participation in the ACT and felt a weekday testing session would meet the needs of students.

In the fall of 2011, after further requests, Ralston Public Schools received notice from ACT that the High School could administer the District Choice State Test in April of 2012. RHS continued to contract with John Baylor for ACT test prep through the fall of 2011 and the spring of 2012. During the fall parents were invited to a meeting to learn more about the importance of an ACT score and how a higher score equates to additional dollars available for scholarships. The juniors were provided test prep throughout the school year during grade specific homeroom times. Test prep continued until the week before testing, John Baylor visited Ralston High School during April of 2012 to share his final recommendations and preparations. On Tuesday, April 24, 2012 Ralston High School administered the ACT the first DCST. Attendance for the day included all but one junior. Increased participation in the ACT due to a DCST has been met, however now the district is looking to identify if administration of the assessment is positively impacting student results including proficiency on state assessments.

## Summary

The National Association of Secondary School Principals maintains that the goal of high school is to graduate all students with the skills and knowledge needed to be good citizens and lead productive secure lives (NASSP, 2005). Research suggests, higher stakes alone may be insufficient to spur consistent action across districts; activism is more than a matter of mandates, it is deeply intertwined with the capabilities of people
and their organizations to respond, their knowledge, their resources, and their motivations (Goertz, 2005). Standards-based reform is about becoming clear on what students should know, and improving curriculum and instruction. Education reform is not testing; testing is for determining whether reforms are working (Barton, 2006).

Reforming the current education system would include identifying college and career readiness as the new standard and require the assessments in place to accurately measure performance towards this goal. Nationally, across all states and all districts, if comparison is important and the goal is to generate highly skilled and educated high school graduates; common assessments must be administered. The use of fragmented, unrelated, disconnected assessments will continue to create fragmented, unrelated, disconnected results. However, if the results generated from multiple measures are providing the same results, are the multiple measures necessary. Based on the aforementioned literature and research findings in an effort to identify if current assessment practices are meeting the needs of students and educators, Ralston Public Schools, is studying the results of college and career readiness testing to identify if the results on multiple measures yield the same results.

## CHAPTER THREE

## Methodology

The educational legislation, No Child Left Behind (NCLB, 2001) required each state to establish challenging academic standards for all students in reading and math and to test students annually to identify proficiency towards those standards. Accountability systems have been designed to create a sense of urgency about improving test scores. However, this has often had the undesirable effect of shortening educators' horizons so that they emphasize changes aimed at improving accountability ratings over the short run. These changes can include narrowing the curriculum to de-emphasize subjects not tested in the current grade, and spending time preparing students on how to answer sample test questions (Koretz, 2010). These state level assessments are in addition to entrance exams that colleges and universities require. Students across the country are being compared against local, state, and national standards in an effort to identify the students at college and career readiness.

## Purpose of the Study

The purpose of this study is to determine the effect of the Universal American College Test (ACT) administration, as part of a required high school assessment program on eleventh-grade students' achievement on state level assessments.

The study focused on two groups of eleventh-grade students. The first group, 2010 eleventh-graders did not participate in the district implementation of the Universal ACT, however did take the Nebraska State Assessment for reading. The second group, 2013 eleventh-graders did participate in the district implementation of the Universal ACT. This chapter describes the participants, procedures, independent variable
descriptions, dependent measures and instrumentation, research questions and data analysis.

The study was grounded in correlational research. According to Gay, Mills, \& Airasian (2006), correlational research involves collecting data to determine whether, and to what degree, a relationship exists between two or more quantifiable variables. The purpose of this correlational study was to determine the if the results of students identified as meeting or exceeding standards on the Nebraska Accountability measure of Reading are congruent or different on the most common college entrance exam in the state of Nebraska, the ACT. This research would predict that there is a correlation between student's who met or exceeded standards on the Nebraska State Assessment in the areas of reading (NeSA -R ) and the same student's ACT score across content areas.

## Participants

Number of participants. Three hundred and four eleventh-grade students, 2010 ( $n=138$ ) and $2013(n=166)$, were identified as scoring met or exceed standards and selected to participate.

Gender of participants. Of the total number of 2010 program participants identified for this study $(n=138)$, the gender ratio was 71 males $(51 \%)$ and 67 females (49\%). Of the total number of 2013 program participants identified for this study ( $n=$ 166), the gender ratio was 81 males ( $49 \%$ ) and 85 females ( $51 \%$ ). The gender ratio of the study participants was congruent with the research schools' overall gender demographics.

Age range of participants. The age range of the study participants was 15 to 17 years.

Racial and ethnic origin of participants. Of the total number of 2010 program
participants identified for this study $(n=138)$, the racial and ethnic origin was 113 White, not Hispanic (82\%); 2 Black, not Hispanic (1\%); 17 Hispanic (12\%); 4 Asian/Pacific Islander (4\%); and 2 Native American Indian (1\%). Of the total number of 2013 program participants identified for this study $(n=166)$, the racial and ethnic origin was 120 White, not Hispanic (72\%); 5 Black, not Hispanic (3\%); 36 Hispanic (22\%); 3 Asian/Pacific Islander (2\%); 2 Native American Indian (1\%). The racial and ethnic origin of the study participants was congruent with the research school's overall racial and ethnic origin demographics.

Inclusion criteria of participants. Student participating in the 2010 and 2013 program were selected based on the criteria as meeting (scale score of $85-134$ ) or exceeding (scale score of $135-200$ ) proficiency according to the Nebraska State Accountability Assessment in the area of reading (NeSA - R). Students were excluded if they did not participate in the NeSA - R or American College Test (ACT) or if the scale score on NeSA - R was 84 or below.

## Description of Procedures

Permission from the appropriate school research personnel was obtained. All study data was routinely collected archival school information. Achievement data was collected using ACT NRT and NeSA - R scores taken late in the spring semester as students were exiting eleventh grade. ACT NRT assessment consisted of scores in reading, English, math, science, and a composite. NeSA - R assessment consisted of scale scores; ranging from below standard $(0-84)$, met standards $(85-134)$, and exceed standards (135-200).

Research design. Posttest only, four-group comparative efficacy study design is displayed in the following notation.

| Group 1 | $\mathrm{X}_{1}$ | $\mathrm{Y}_{1}$ | $\mathrm{Y}_{3}$ | $\mathrm{O}_{1}$ |
| :---: | :---: | :---: | :---: | :---: |
| Group 2 | $\mathrm{X}_{1}$ | $\mathrm{Y}_{1}$ | $\mathrm{Y}_{4}$ | $\mathrm{O}_{1}$ |
| Group 3 | $\mathrm{X}_{1}$ | $\mathrm{Y}_{2}$ | $\mathrm{Y}_{3}$ | $\mathrm{O}_{1}$ |
| Group 4 | $\mathrm{X}_{1}$ | $\mathrm{Y}_{2}$ | $\mathrm{Y}_{4}$ | $\mathrm{O}_{1}$ |

Group 1: 2010 students who met NeSA Reading Standards ( $N=103$ )
Group 2: 2013 students who met NeSA Reading Standards ( $N=108$ )
Group 3: 2010 students who exceeded NeSA Reading Standards $(N=35)$
Group 4: 2013 students who exceeded NeSA Reading Standards $(N=58)$
$\mathbf{X}_{1}$ : Students attended the research school for the entire year: 2012-13 for Group 2 and Group 4 and 2010-11 for Group 1 and Group 3.
$\mathbf{Y}_{1}$ : Students who met NeSA Reading Standards during the spring test.
$\mathbf{Y}_{2}$ : Students who exceeded NeSA Reading Standards during the spring test.
$\mathbf{Y}_{3}$ : Students who attended research school and did not receive Universal ACT administration or preparation.
$\mathbf{Y}_{4}$ : Students who attended research school and received Universal ACT administration and preparation.
$\mathbf{0}_{1}$ : End of eleventh grade spring ACT: (a) ACT English, (b) ACT Mathematics, (3) ACT
Reading, (d) ACT Science, and (e) Composite.

## Research Questions and Data Analysis

Research Question \#1. Are 2013 ACT scores for students who met the 2013
NeSA Reading Standards congruent or different from 2010 ACT scores for students who
met the standards on the 2010 NeSA Reading Standards for the ACT subtests: English, Mathematics, Reading, Science and composite?

Analysis. Research Questions 1a, 1b, 1c, and 1d was analyzed using independent $t$ tests to examine the significance of the difference between the students identified as met NeSA- Reading 2010 and students' identified as met NeSA - Reading 2013 and the end of eleventh grade ACT (a) English, (b) Mathematics, (c) Reading, (d) Science and, (e) ACT composite. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations are displayed in tables.

Research Question \#2. Are 2013 ACT scores for students who exceeded the 2013 NeSA - Reading Standards congruent or different from 2010 ACT scores for students who exceeded the standards on the 2010 NeSA - Reading for the ACT subtests: (a) English, (b) Mathematics, (c) Reading, (d) Science, and (e) composite?

Analysis. Research Questions 2a, 2b, 2c, and 2d was analyzed using independent $t$ tests to examine the significance of the difference between the students identified as exceeding NeSA - Reading 2010 and students' identified as exceeding NeSA - Reading 2013 and the end of eleventh grade ACT (a) English, (b) Mathematics, (c) Reading, (d) Science and, (e) ACT composite. Because multiple statistical tests were conducted, a one-tailed .01 alpha level was employed to help control for Type I errors. Means and standard deviations are displayed in tables.

Research Question \#3. Is there a significant correlation between the 2013 NeSA Reading scores and the 2013 ACT Reading Scores for students who met or exceeded 2013 NeSA Reading?

Analysis. Research question 3 was analyzed using a Pearson Product Moment Correlation to determine the measure of strength between the students identified as meeting and exceeding 2013 NeSA Reading and 2013 ACT Reading. The coefficient +1 or -1 was used to identify the degree of correlation.

## Instrument

The ACT contains four multiple-choice tests, including English, Mathematics, Reading, and Science. These tests are designed to measure skills identified as most important for success in post-secondary education and acquired in secondary education (ACT, Inc., 2007b). The fundamental idea underlying the development and use of these tests is to determine how well prepared students are for further education and to measure, as directly as possible, the academic skills students need to perform college-level work. The content specifications describing the knowledge and skills to be measured by the ACT were determined through a detailed analysis of relevant information: First, the curriculum frameworks for grades seven through twelve were obtained for all states in the United States with published frameworks. Second, textbooks on state-approved lists for courses in grades seven through twelve were reviewed. Third, educators at the secondary and postsecondary level were consulted on the importance of the knowledge and skills included in the reviewed frameworks and textbooks. Because one of the primary purposes of the ACT is to assist in college admission decisions, in addition to taking the steps described above, ACT conducted a detailed survey to ensure the appropriateness of the content of the ACT tests for this particular use (ACT Inc., 2007b).

For each of the four multiple-choice tests in the ACT (English, Mathematics, Reading, and Science), the raw scores (number of correct responses) are converted to
scale scores ranging from 1 to 36 . The Composite score is the average of the four scale scores rounded to the nearest whole number (fractions of 0.5 or greater round up). The minimum Composite score is 1 ; the maximum is 36 . College Readiness Standards were set based on the analysis of the skills and knowledge students need in order to receive a C or better in a college course. Content specialists analyzed test items taken from dozens of test forms. The $80 \%$ criterion was chosen because it offers those who use the College Readiness Standards a high degree of confidence that students scoring in a given score range will most likely be able to demonstrate the skills and knowledge described in that range. ACT identifies the scores necessary in each of the four tests: English - 18, Mathematics - 22, Reading - 21, and Science - 24 (ACT Inc., 2007b).

## CHAPTER FOUR

## Results

The purpose of this study was to determine the effect of the Universal American College Test (ACT) administration as part of a required high school assessment program on eleventh grade students' achievement on state level assessments. The study focused on four groups of eleventh-grade students. The first group, eleventh graders who scored met on the 2010 NeSA Reading assessment and did not participate in the district implementation of the Universal ACT but took the 2010 ACT. The second group, eleventh-graders who scored exceed on the 2010 NeSA Reading assessment and did not participate in the district implementation of the Universal ACT but took the 2010 ACT. The third group, 2013 eleventh-graders who scored met on the 2013 NeSA Reading assessment and did participate in the district implementation of the 2013 Universal ACT. The fourth group, 2013 eleventh-graders who scored exceed on the 2013 NeSA Reading assessment and did participate in the district implementation of the 2013 Universal ACT.

## Research Question \#1 - NeSA Reading Met

Are 2013 ACT scores for students who met the 2013 NeSA Reading Standards congruent or different from 2010 ACT scores for students who met the standards on the 2010 NeSA Reading Standards for the ACT subtests: English, Mathematics, Reading, Science and composite?

English. As seen in Table 1, scores for students who met the NeSA Reading standards and 2013 ACT English Subtest ( $M=17.76, S D=3.70$ ) were not significantly different from students who met NeSA Reading standards and 2010 ACT English Subtest $(M=19.01, S D=4.40), t=2.40, p=.02, d=0.33$. (two-tailed). The range of scores on
the 2010 ACT in the subtest of English was 8 - 28. The score ranges for the 2013 ACT subtest of English was $10-30$.

Mathematics. Scores for 2013 ACT Mathematics Subtest ( $M=18.25, S D=$ 3.55) were not significantly different from 2010 ACT Mathematics Subtest ( $M=19.24$, $S D=3.49$ ), $t=2.05, p=.04, d=.28$. (two-tailed). The range of scores on the 2010 ACT in the subtest of Mathematics was 13-28. The score ranges for the 2013 ACT subtest of Mathematics was 14-31.

Reading. There was not a significant difference between 2013 ACT Reading Subtest $(M=19.06, S D=4.48)$ and 2010 ACT Reading Subtest $(M=20.40, S D=4.59)$, $t=2.14, p=.03, d=.29$. (two-tailed). The range of scores on the 2010 ACT in the subtest of Reading was $6-31$. The score ranges for the 2013 ACT subtest of Reading was 7-31.

Science. 2013 ACT Science Subtest scores ( $M=19.74, S D=3.58$ ) were not significantly different than 2010 ACT Science Subtest scores $(M=20.58, S D=3.46), \mathrm{t}=$ $2.69, p=.08, d=.24$. (two-tailed). The range of scores on the 2010 ACT in the subtest of Science was $10-28$. The score ranges for the 2013 ACT subtest of English was 10 30.

Composite. Scores for the 2013 ACT Composite ( $M=18.74, S D=3.04$ ) were not significantly different from 2010 ACT Composite $(M=19.92, S D=3.35) t=2.69, p$ $=.01, d=.37$. (two-tailed). The range of scores on the 2010 ACT in the Composite was 12-27. The score ranges for the 2013 ACT Composite was $13-29$.

## Research Question \#2 - NeSA Reading Exceed

Are 2013 ACT scores for students who exceeded the 2013 NeSA - Reading Standards congruent or different from 2010 ACT scores for students who exceeded the standards on the 2010 NeSA - Reading for the ACT subtests: (a) English, (b) Mathematics, (c) Reading, (d) Science, and (e) composite?

English. As seen in Table 2, scores for students who exceeded the NeSA Reading standards and 2013 ACT English Subtest ( $M=23.97, S D=4.51$ ) were not significantly different from students who met NeSA Reading standards and 2010 ACT English Subtest $(M=25.94, S D=4.49), t=2.05, p=.04, d=0.44$. (two-tailed). The range of scores on the 2010 ACT in the subtest of English was $15-35$. The score ranges for the 2013 ACT subtest of English was 15 - 32 .

Mathematics. Scores for 2013 ACT Mathematics Subtest ( $M=22.41, S D=$ 4.63) were not significantly different from 2010 ACT Mathematics Subtest ( $M=23.51$, $S D=4.13$ ), $t=1.16, p=.25, d=.25$. (two-tailed). The range of scores on the 2010 ACT in the subtest of Mathematics was $15-32$. The score ranges for the 2013 ACT subtest of Mathematics was $10-30$.

Reading. There was not a significant difference between 2013 ACT Reading Subtest ( $M=25.40, S D=4.76$ ) and 2010 ACT Reading Subtest $(M=26.80, S D=4.44)$, $t=2.42, p=.16, d=.30$. (two-tailed). The range of scores on the 2010 ACT in the subtest of Reading was $16-35$. The score ranges for the 2013 ACT subtest of Reading was $16-36$.

Science. 2013 ACT Science Subtest scores ( $M=22.95, S D=4.54$ ) were not significantly different than 2010 ACT Science Subtest scores $(M=25.03, S D=4.21), t=$
$2.20, p=.03, d=.47$. (two-tailed). The range of scores on the 2010 ACT in the subtest of Science was $13-36$. The score ranges for the 2013 ACT subtest of Science was 12 33.

Composite. Scores for the 2013 ACT Composite ( $M=23.71, S D=4.01$ ) were not significantly different from 2010 ACT Composite $(M=25.14, S D=3.57) t=1.74, p$ $=.09, d=.37$. (two-tailed). The range of scores on the 2010 ACT Composite was $15-$ 33. The score ranges for the 2013 ACT Composite was $17-33$.

## Research Question \#3 - 2013 NeSA Reading Met and Exceed

Is there a significant correlation between the 2013 NeSA Reading scores and the 2013 ACT Reading Scores for students who met or exceeded 2013 NeSA Reading?

Exceed. For students who scored exceed on NeSA Reading 2013 there was a statistically significant correlation between 2013 NeSA Reading and 2013 ACT Reading, $(r=+0.60, n=58, p=<.01$, two tails). Overall, there was a strong, positive correlation between NeSA Reading scores and ACT Reading scores. Increases in NeSA Reading were correlated with increases in ACT Reading scores.

Met. For students who scored met on NeSA Reading 2013 there was a statistically significant correlation between 2013 NeSA Reading and 2013 ACT Reading, $(r=+0.44, n=86, p=<.01$, two tails). Overall, there was a strong, positive correlation between NeSA Reading scores and ACT Reading scores. Increases in NeSA Reading were correlated with increases in ACT Reading scores.

Table 1
Comparison of ACT Subtest and Composite Scores for Student who Met NeSA Reading
Standards in 2010 and 2013

|  | 2010 |  | 2013 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $M$ | $S D$ | $M$ | $S D$ | $t$ | $p$ | $d$ |
| English | 19.01 | 4.40 | 17.76 | 3.70 | 2.40 | .02 | 0.33 |
| Mathematics | 19.24 | 3.49 | 18.25 | 3.55 | 2.05 | .04 | 0.28 |
| Reading | 20.40 | 4.59 | 19.06 | 4.48 | 2.14 | .03 | 0.29 |
| Science | 20.58 | 3.46 | 19.74 | 3.58 | 1.74 | .08 | 0.24 |
| Composite | 19.92 | 3.35 | 18.74 | 3.04 | 2.69 | .01 | 0.37 |

Table 2
Comparison of ACT Subtest and Composite Scores for Student who Exceed NeSA
Reading Standards in 2010 and 2013

|  | 2010 |  | 2013 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| English | $M$ | $S D$ | $M$ | $S D$ | $t$ | $p$ | $d$ |
| Mathematics | 25.94 | 4.49 | 23.97 | 4.51 | 2.05 | .04 | 0.44 |
| Reading | 23.51 | 4.13 | 22.41 | 4.63 | 1.16 | .25 | 0.25 |
| Science | 25.80 | 4.44 | 25.40 | 4.76 | 1.41 | .16 | 0.30 |
| Composite | 25.14 | 3.57 | 23.71 | 4.01 | 1.74 | .09 | 0.37 |

Table 3
Correlations Between 2013 NeSA Reading And ACT for Students who Meet and Exceed the 2013 NeSA Reading Standard

|  | ACT Reading |  |
| :---: | :---: | :---: |
| 2013 | $r$ | $p$ (two-tailed) |
| NeSA Reading Meet | +0.44 | $<.01$ |
| NeSA Reading Exceed | +0.60 | $<.01$ |

## Summary

Overall, there were no significant differences found between students who took the 2010 ACT and students who took the 2013 ACT and had a score of met or exceed on the 2010 NeSA Reading or the 2013 NeSA Reading.

Results show that the mean scores for students' who scored met on the 2010 NeSA Reading and who took the 2010 ACT demonstrated achievement levels not significantly different from those students' scores of met on the 2013 NeSA Reading and took the 2013 ACT. Further investigation demonstrated that the mean scores for students' scores of exceed on the 2010 NeSA Reading and who took the 2010 ACT demonstrative achievement levels not significantly different from those students' scores of exceed on the 2013 NeSA Reading and who took the 2013 ACT.

Statistically significant results were demonstrated when correlating the results of the 2013 NeSA Reading for both the group of students who met standards and the group of students who exceeded standards. This statistically significant correlation demonstrates that as the students' scores increased on 2013 NeSA Reading so does the students' score on 2013 ACT subtest of Reading.

The following conclusions may be drawn from the research study for questions based on NeSA Reading and ACT including the subtests of English, Mathematics, Reading, Science, and the composite.

## CHAPTER FIVE

## Conclusions and Discussions

## Purpose of the Study

The purpose of this quantitative study was to explore the effects of district Universal ACT administration on Nebraska State Accountability - Reading (NeSA - R) by comparing student scores from 2010 and 2013.

This study analyzed the mean scale scores of four groups of students in the research district's one high school. Group 1 was comprised of the research district's students who were in grade eleven during the 2009-2010 school year, enrolled for the entire year, took the 2010 NeSA Reading and scored at the met level ( $N=103$ ). Group 2 was comprised of research district's students who were in grade eleven during the 20092010 school year, enrolled for the entire year, took the 2010 NeSA Reading and scored at the exceed level $(N=35)$. Students enrolled in group 1 and 2 took the 2010 ACT on a nationally identified date. The 2010 ACT scores reported include the highest score obtained by individual students. Group 3 was comprised of the research district's students who were in grade eleven during the 2012-2013 school year, enrolled for the entire year, took the 2013 NeSA Reading and scored at the met level ( $N=108$ ). Group 4 was comprised of research district's students who were in grade eleven during the 2012-2013 school year, enrolled for the entire year, took the 2013 NeSA Reading and scored at the exceed level $(N=58)$. Students in groups 3 and 4 took the 2013 ACT as a part of the district's Universal ACT administration. The 2013 ACT scores reported included only the universal administration scores from April of 2013. Student's who
chose to take the ACT multiple times potentially did not have the "highest" score reported for the purposes of this study.

The district implementation of Universal ACT was in response to the significant shift in student demographics observed within the research district during the school years between 2001 - 2002 and 2010 - 2011. The shift in demographics created a need for school district administration to change instruction and assessment practices as it related to college preparation. The district experienced a decline in students taking the ACT, applying for college or financial aid, and a decline in overall assessment results (NDE, 2011). The research district wanted to ensure that students were prepared for successful transitions after high school. The study investigated the correlational relationship between student scores on the ACT and state assessments.

## Conclusions

The following conclusions were drawn from the study for each of the three research questions.

## Research Question \#1

Research question \#1 was used to analyze whether two student groups in this study (Group 1 and Group 2) who performed at the met proficiency level on the state assessment, NeSA - R, also performed at congruent levels on the ACT subtests of English, mathematics, reading, science, and the composite. Group 1 included students from school year 2009-2010, enrollment in the research district prior to Universal ACT administration. Group 2 included students from school year 2012-2013, enrollment in the initial implementation year for Universal ACT administration.

Students in Group 1 (non-Universal ACT) performed at a level not significantly different than the students in Group 2 (Universal ACT). Further analysis identified that $66.5 \%$ of the research district eleventh graders took the 2010 ACT while $94.2 \%$ of the research district eleventh graders took the 2013 ACT. This variation demonstrates, for this research district, that when the percent of students taking the ACT increases, a statistical change among scores for students who met the state level NeSA - R assessment does not exist. During 2013, 47\% of the students taking the ACT scored at the met proficiency level according to NeSA - R, while during the 2010 ACT administration, $43 \%$ of the students scored at the met proficiency level according to NeSA - R

Scores obtained for the ACT subtest English for students in Group 1 ( $M=19.01$, $S D=4.40)$ and Group $2(M=17.76, S D=3.70)$ demonstrate that student scores are within the ACT defined college benchmark score range (16-19). Scores obtained for the ACT subtest for Mathematics for students in Group $1(M=19.24, S D=3.49)$ and Group $2(M=18.25, S D=3.55)$ demonstrate that student scores are within the ACT defined score range of $16-19$, this score range is adjacent to the ACT defined college benchmark score range of $20-23$. Scores obtained for the ACT subtest Reading for students in Group $1(M=20.40, S D=4.59)$ and Group $2(M=19.06, S D=4.48)$ demonstrate that student scores are within adjacent score ranges. Group 1 is within the ACT defined college benchmark score range of $20-23$ and Group 2 is within an adjacent score range, 16-19. Scores obtained for the ACT subtest Science for students in Group $1(M=20.58, S D=3.46)$ and Group $2(M=19.74, S D=3.58)$ demonstrate that student
scores are within congruent score ranges. Group 1 is within the ACT defined college benchmark score range of $20-23$ and Group 2 is within an adjacent score range, $16-19$.

## Research Question \#2

Research question \#2 was used to analyze whether two student groups in this study (Group 3 and 4) who performed at the exceed proficiency level on the state assessment, NeSA - R, also performed at congruent levels on the ACT subtests of English, mathematics, reading, science, and a composite. Group 3 included students from school year 2009-2010, enrollment in research district prior to Universal ACT administration. Group 4 included students from school year 2012-2013, enrollment in initial implementation year for Universal ACT administration.

Students in Group 3 (non-Universal ACT) performed at a level not significantly different than the students in Group 4 (Universal ACT). Further analysis identified that during 2013, $26 \%$ of the students taking the ACT scored at the exceed proficiency level according to NeSA -R , while during the 2010 ACT administration, $14 \%$ of the students scored at the exceed proficiency level according to $\mathrm{NeSA}-\mathrm{R}$.

Scores obtained for the ACT subtest English for students in Group 3 ( $M=25.94$, $S D=4.49)$ and Group $4(M=23.97, S D=4.51)$ demonstrate that student scores are in the score range of $24-27$, a score range in the adjacent range above the ACT defined college benchmark score range (16-19). Scores obtained for the ACT subtest for Mathematics for students in Group $1(M=23.51, S D=4.13)$ and Group $2(M=22.41$, $S D=4.63$ ) demonstrate that student scores are within the ACT defined score range of 2023, this is within the ACT defined college benchmark score range. Scores obtained for the ACT subtest Reading for students in Group $3(M=26.80, S D=4.44)$ and Group 4 ( $M$
$=25.40, S D=4.76$ ) demonstrate that student scores are within the range of $24-27$, a range above the adjacent range of the ACT defined college benchmark score range of 20 - 23. Scores obtained for the ACT subtest Science for students in Group 1 ( $M=25.03$, $S D=4.21)$ and Group $2(M=22.95, S D=4.54)$ demonstrate that student scores are within adjacent score ranges. Group 3 is within the ACT defined college benchmark score range of 24 - 27 and Group 4 is within an adjacent score range, $20-23$.

## Research Question \#3

Research question \#3 was used to analyze the statistical correlation of two student groups in this study (Group 2 and 4) scores on the 2013 ACT subtest Reading and performed at the met or exceed proficiency level on the state assessment, NeSA - R. The results indicate that there is statistical correlation between Group $2(r=+0.44, p=<.01)$ and Group $4(r=+0.60, p=<.01)$. Further investigation would identify that the higher a student's NeSA Reading score the higher the student's ACT Reading subtest score. This correlation is strongest at the +1.0 level and Group 4 demonstrated $\mathrm{a}+0.60$. at the twotail $p<.01$ level.

## Discussion

## College and Career Readiness

The most notable results from this study include that even when the research school district increased student participation in the ACT, a statistical difference did not emerge between students who performed at the met or exceed level. According to the research of this study, students who performed at the proficient level on the state assessment $(\mathrm{NeSA}-\mathrm{R})$ and students who participated in the ACT when part of a district program did not statistically change the results of the research district. While this may
seem to be counter-intuitive, it demonstrates that the implementation of Universal ACT did not have a statistically positive or negative effect on the research district's results. Implying that a Universal ACT program does not impact the results of the ACT or a state level assessment.

The research district saw an increase in the number of students taking the ACT with the implementation of the Universal ACT, in 2010 66.5\% of the total eleventh grade and in $201394.2 \%$ of the total eleventh grade. The data also reveals that a larger percentage of students who took the ACT scored at the met and exceed level on the NeSA Reading. In 2010, 43\% of the students scored at met proficiency, while in 2013 $47 \%$ of the students scored at the met proficiency level. This same increase was noted at the exceed proficiency level. Fourteen percent of the students scored exceed in 2010 and $26 \%$ of the students scored exceed in 2013 . This would indicate that while the scores within the proficiency levels did not significantly change, the increase in participation demonstrated an increase in the percentage of students within each range.

While the data does not demonstrate that the Universal ACT administration had impacted the level at which students are prepared for college or future careers, the data may indicate that there are more students potentially able to enter college or a career with more readiness. An area for future study within the research district would be to analyze the impact associated with the increase in participation. Have more students applied for and attended a college or university? Are students applying for and receiving more financial aid due to the increased participation in the Universal ACT? Are students graduating successfully from a college or university at a significantly different rate based on the participation of Universal ACT? Research would suggest that a large gap still
exists between how high school teachers perceive the college readiness of high school graduates and how college instructors perceive the readiness of their incoming first-year students (ACT, Inc. 2013a). Continuing to analyze the efforts of the research district's results after Universal ACT; may create a better understanding of college and career preparation and readiness. According to Brand (2003), a connection between high school and postsecondary education must become a basic element of all programs; this may be possible when the norm in a district is the Universal ACT administration. All high school teachers become more aware of the readiness standards, not just the core content, English, math, science, and social studies, teachers.

## Aligned College and Career Readiness Assessments

While the research study did not analyze the level of alignment between the Nebraska state assessment and the ACT, it did identify that in two different years, students who scored at or above the met proficiency level, there were no statistical changes in results. This demonstrates that the preparation of the students for the years of 2010 and 2013 are congruent for each assessment. Aligning assessments is critical for student success. Teachers are able to focus efforts and understand the demands of the standards and the content. In order for teachers to effectively provide instruction, quality assessments need to be in place to identify students below, meeting or exceeding standards. According to Russel (2005), school leaders need to work with district leaders and teacher teams to ensure systems are in place to identify students who need additional attention and support, either because they are performing below grade level or because they have demonstrated early mastery of the curriculum and are ready for extended learning opportunities.

High school programs of study must clearly define the sequence of courses needed to move from high school to postsecondary education and help students know what is needed and when it is needed in order to advance (Brand, 2003). Implementation of Universal ACT provided the research district the focus necessary to begin the work of clearly defining the sequence of courses for students. The research district has room to improve and this study did not investigate the level of alignment of curriculum, instruction, or assessments. ACT (2012b) reports, classroom teachers need to work together in collaborative teams focused on improving instructional practices. As part of routine responsibilities as team members, teachers can freely share materials and instructional strategies; develop review and refine lessons; and study student work samples and common assessment results. Observing instruction, classrooms, and reflecting with colleagues about how a particular lesson did or did not work; has the potential to significantly impact student results.

Staff can integrate this information to assist students early in high school to align their educational plans, career goals, and high school coursework; to help students consider pursuing postsecondary education and identify ways to remove or minimize barriers to obtaining that education; and to monitor and intervene with students at risk of not being ready for college or career by the time they graduate (ACT, Inc., 2012d). The research district has all of the important elements in place, Universal ACT administration, common time weekly devoted to professional learning communities, and an evolving understanding of the importance of college and career readiness within students. The school's master schedule can be used in several ways to support instructional improvement: to allocate instructional time across subject areas; to give students
equitable access to experienced and effective teachers; to provide collaborative planning time for teachers of the same grade or subject; and to ensure students have adequate learning time in subjects in which they need assistance (ACT, Inc., 2012b).

Working collaboratively, teachers can analyze the results of the Universal ACT and identify areas of instructional strengths and growth areas. Student scores can be analyzed based on course sequences, instructors, length of time in the district, as well as connected to enrollment in post secondary education institutions. Education policy must also further enhance a district's ability to include additional information about students' college and career readiness by using multiple outcome measures - a mix of indicators achievement, student growth, and other indicator like attendance or dropout, etc. (Lang, 2000).

It is imperative that a common goal be set, the research district's goal is realistic. The belief within the research district is that all students have an equal opportunity to attend a post secondary college or university. With the implementation of the Universal ACT , continued analysis needs to be conducted to identify if there are changes in the rate at which students eligible for free or reduced lunch are attending and graduating from post secondary colleges or universities. It will also be important to analyze the data based on the common federally defined subgroups: special education, English Language Learners, female, males, race and ethnicity.

Questions that the research district may pose to policy makers and educational leaders include: If the results within performance groups do not statistically change based on the assessment, is it critical to have multiple assessments? What is the purpose of each assessment, ACT and NeSA? If the results are not significantly different, why
are districts required to administer both? Valuable resources are allocated to the administration of assessments. Currently, the state of Nebraska spends approximately $\$ 43.80$ per junior across the state to take the NeSA series - reading, math, science, and writing. The research district is spending $\$ 37$ per student to administer the ACT -a commonly recognized assessment for college entrance. Researchers Anderson, Brown \& Palaich (2007) asked, is the current amount of time and associated expense for testing adequate; or conversely, are we spending too much time and money testing kids? What is the appropriate balance (in time and money) between assessing what kids need to know through summative and formative assessments (Anderson, Brown, \& Palaich, 2007). Future study is needed in order to identify a cost-benefit analysis for the assessments administered in the state of Nebraska.

According to the Common Core State Standards Initiative web site, 44 of the 50 states have adopted the Common Core State Standards. The web site also lists over 30 different organizations in support of the CCSS, the list includes the National Council of Teachers of Mathematics, Nation Education Association, National Parent Teacher Association, National School Boards Association, The United States Army, Council for Exceptional Children, Coalition for a College and Career Ready America, ACT, The College Board, and The Business-Higher Education Forum to name a few. These powerful organizations see value in holding students, schools, districts, and states accountable to a common set of standards. Currently the state of Nebraska is one of only six states not in agreement with over 30 organizations. Does this help to create Nebraska students capable of competing in a national and world market for jobs and enrollment within colleges and universities?

## Successful Universal ACT

This research study was not a study of successful implementation of a Universal ACT initiative. Future studies would need to be conducted to measure the impact of the clearly identified goals. This research study did not investigate factors associated with student assessment success. Student motivation, course work, or students' future plans were not taken into consideration when analyzing student results. It could be argued that student motivation impacted the assessment results; therefore the results from the research district can only be analyzed as identified within this study.

Currently five states - Colorado, Illinois, Kentucky, Michigan, and Wyoming administer the ACT to all public high school students (ACT, Inc., 2009). Trends in educational achievement, as measured by ACT test scores, in the years since statewide ACT administration began in CO and IL have roughly paralleled those for the nation as a whole. This is encouraging because unlike in other states, the test-taking populations in CO and IL include students not planning to attend college (ACT, Inc., 2009). ACT conducted research in Colorado and Illinois, in the years since statewide ACT administration began, improvements have occurred in one of both of the two states in the following areas: student academic achievements, student readiness for college, the number of students considering college, and college enrollment and retention (ACT, Inc., 2009). Taking the ACT can encourage many students to explore their educational and career interests, define goals for further education, and begin to think about how to reach these goals. Statewide ACT administration also fosters collegiate outreach to targeted populations. Because most postsecondary institutions begin their recruitment efforts
before grade 12, statewide junior-year administration of the ACT facilitates earlier contact between postsecondary institutions and students (ACT, Inc., 2009).

Another area of improvement reported through the statewide implementation of ACT has been an increase in college enrollment and steady retention. College retention rates in CO and IL held steady even as college enrollment increased. Statewide implementation of ACT has also improved workforce planning and career counseling information. Theses findings demonstrate that some positive changes have occurred since the introduction of statewide ACT administration in each state. The most dramatic change has been in the number of students considering college after statewide implementation (ACT, Inc., 2009). Statewide adoption of the ACT appears to benefit states by enlarging the pool of students who consider college and then take the necessary steps to prepare themselves.

Currently, in the state of Nebraska, eight school districts are participating in a Universal ACT pilot program. The districts within the pilot include: Alliance Public Schools, Columbus Public Schools, Gering Public Schools, Hastings Public Schools, Scottsbluff Public Schools, Sidney Public Schools, Lincoln Public Schools and South Sioux City Community Schools. In a presentation to educators across the state of Nebraska in April of 2012, Joe Cruse, representing ACT Mountain / Plains Region, and Sean Moore, representing ACT National Office; stated that "by administering the ACT to all eleventh graders in the pilot districts, the Nebraska ACT Pilot purposes to address two broad questions:

- Would the ACT be an appropriate measure of college readiness, such that it could replace and/or reduce the presently required eleventh grade state assessments in
reading/ELA, mathematics, writing and science for the purposes of federal and state accountability requirements?
- Would it change attitudes about going to college and push the college going rate upward, particularly for underrepresented groups?"

The results of this study could add to the body of research currently being conducted by the state of Nebraska to help guide a decision regarding the first question.

The April 2012 presentation included information regarding possible barriers to college access: communicating college readiness, communicating college needs and preferences, connecting with the right college or university, accessing college admission tests, issues with parental or high school guidance, learning about financial aid and scholarships. All of the aforementioned barriers could possibly exist in the research district. The presenters discussed potential benefits of Universal ACT, stating that when a student takes the ACT, colleges are able to identify and reach out to potential students through the ACT score reports and Educational Opportunity Service; the presenters also indicated that colleges are able to facilitate access by using these to connect students with appropriate campus programs and resources. In a country where the earning potential over a lifetime of a high school graduate versus a non-graduate translates into approximately $\$ 630,000$ (Rouse, 2007), how can an educator afford not to provide universal access to an assessment that nearly $81 \%$ of colleges and universities use as part of the admissions process (ACT Inc., 2012b).

According to ACT (2012a), the assessment is linked to the Common Core State Standards ensuring that expectations are high. When analyzing the research regarding effective educational practices including instruction and assessment practices, Cruse and

Moore (2012) would contend that ACT's college readiness standards: 1. Provide a direct link between what students have learned and what they are ready to learn next, and 2 . Provide suggested learning experiences between the standards in one score range and those in the next higher score range, as well as 3 . Provide ideas for progressing to the next score range demonstrating ways that information learned from standardized test results can be used to inform classroom instruction. "Every student should be prepared to a standard of readiness for postsecondary education and work" was the message clearly articulated by the ACT representatives Cruse and Moore (2012). Universal ACT could be considered the great equalizer.

The research district, while not a part of the Nebraska pilot, has implemented the Universal ACT for the same number of years and has funded with local resources. The perceived positive impact has spread via word of mouth through both formal and informal conversations among educators across the state of Nebraska. At last count there were an additional 22 high schools participating in Universal ACT during the spring of 2014. With this widespread implementation at individual district expense, how can the State Board of Education and policy makers in the state of Nebraska not take notice? The data collected and analyzed from other states that have implemented Universal ACT have demonstrated results. This research study has demonstrated that statistically significant data results do not indicate positive or negative effects on state level assessments, therefore begging the question, are both necessary? The ultimate success of these efforts will be measured not by individual student ACT results, or even by district results, but by the evidence of a well-prepared workforce and citizenry, a revitalized national economy, and global competitiveness (Chapman, Laird, \& Kewal, 2013).

As educational leaders we need to ask the question, how well do our existing assessments measure what students need to know in order to be successful in college and the workforce? Do they test what students really need to know and, if not, what is needed to augment our current system? (Anderson, Brown \& Palaich, 2007). If we truly want to leave no child behind academically or economically, we need to combine humanistic values with an awareness of educational and labor force realities as well as recognition that one size does not fit all. While $65-70 \%$ of American youths do not go on to receive four-year degrees, and a commensurate number of jobs do not require such degrees. Finally, the hundreds of thousands of young people who do not graduate from high school or are at risk of dropping out, are at risk of being excluded from the American Dream unless policy makers, educators, and members of the community concentrate efforts to engage the youth in the educational process (Panel, 2004).

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