# EFFECTS OF A SCHOOL-WIDE READING LITERACY PLAN ON READING SKILLS: A RETROSPECTIVE, QUASI-EXPERIMENTAL STUDY

by

Maria Gutierrez Bicknell

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#### **ABSTRACT**

Students' low academic performance in high-poverty schools has been a prevalent problem in the United States. Educational leaders have curricular options for underperforming students to make academic gains, particularly in Title I schools. Student performance accountability is part of the Elementary and Secondary Education Act (ESEA) of 1965, which was reauthorized as No Child Left Behind Act of 2001 (NCLB). NCLB mandates stipulate students attain academic proficiency. The purpose of the current quantitative, retrospective, quasi-experimental, static group comparison study was to determine if an increase occurred in reading achievement of 10<sup>th</sup> grade students with implementation of a school-wide, interdisciplinary reading literacy plan intended to increase student performance on the state's high-stakes examination. This study used multi-year, successive 10<sup>th</sup> grade cohorts from an urban, public Title I high school in Arizona. Academic achievement data were archived and retrospective from Arizona's high-stakes, criterion-based examination scores. A two-sample, one-tailed ttest was conducted to find differences in mean value, standard deviation, and variance between two cohorts. Statistical analyses revealed a significant statistical difference on the reading portion of the state's high-stakes examination scores between cohorts, revealing the control group outperformed the treatment group, thus challenging existing results from successful school-wide literacy plans in public Title I schools. Results indicated implementation of a school-wide, interdisciplinary reading literacy plan does not increase achievement for students on the reading portion of the state's high-stakes examination at a Title I urban high school in Arizona.

## DEDICATION

With love to my parents, Amado and Maria Ana Gutierrez.

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## CHAPTER 1

## INTRODUCTION

No Child Left Behind Act of 2001 (NCLB) mandates each state test students according to the state's academic standards, test students in reading, mathematics, and science, and set yearly accountability targets, all of which prescribe 100% of students are proficient in reading and mathematics by 2014. However, since 2002, 37% of America's schools have not met targets mandated by NCLB. The U.S. Department of Education estimated over 80% of schools in America will not meet NCLB target mandates in 2011 (The White House, 2011c). The U.S. Department of Education (n.d.b) noted as of school year 2009-2010, Arizona hosted 622 school districts and 2,090 public schools.

Approximately 71.1% of Arizona's schools made adequate yearly progress (AYP), and 298 Title I schools were identified for improvement, corrective action, or restructuring, contributing to the national percentage rate of schools not meeting NCLB target mandates (U.S. Department of Education, n.d.b).

In August 2011, the Arizona Department of Education identified a large school district in Arizona for Title I Local Education Agency (LEA) Improvement. According to NCLB guidelines and the state's accountability system, the school district's LEA did not meet AYP for two consecutive years in the same indicator and across all grade-spans (Pedicone, 2011). Efforts were ongoing in the district's low performing high schools to increase student achievement scores on Arizona's Instrument to Measure Standards (AIMS), the state's high-stakes examination.

Among schools in the district making an effort to meet a NCLB goal of 100% proficiency in state standards, make AYP, and improve students' reading scores on the AIMS examination, was a low-performing high school where a school-wide, interdisciplinary reading literacy plan was implemented in school year 2010-2011. The high school's school-wide, interdisciplinary literacy plan was entitled 301-Site Plan, and was an accountability plan aligned with the NCLB goal of 100% proficiency in state standards. The focus of this quantitative, retrospective, quasi-experimental, nonequivalent control group research study was to determine if there was a difference between student high-stakes examination scores without a school-wide reading literacy plan.

The following sections include the research problem, purpose, and significance of this quantitative, retrospective, quasi-experimental, nonequivalent control group study. Sections also include the research questions, hypotheses, and theoretical framework, as are definition of terms, assumptions, scope, limitations, and delimitations of the study, all of which are associated to the school-wide, interdisciplinary reading literacy plan and performance of 10<sup>th</sup> grade students in the state's high-stakes examination.

#### **Statement of the Problem**

Since 2002, 37% of America's schools have not met targets mandated by NCLB which prescribed 100% of students are proficient in reading and mathematics by 2014. The U.S. Department of Education estimated over 80% of schools in America will not meet NCLB target mandates in 2011 (The White House, 2011c). Many Title I schools, governed by the NCLB mandates, do not meet the annual measurable objectives set by states (U.S. Department of Education, n.d.b).

The general problem is some Arizona schools do not meet annual measurable objectives and do not make adequate yearly progress (U.S. Department of Education, n.d.b). Students' high-stakes examination scores are part of the equation for a school to meet annual measurable objectives and make adequate yearly progress. The specific educational issue examined in this study was the difference between high-stakes examination scores of students who received and students who did not receive instruction from a school-wide reading literacy plan focusing on vocabulary and comprehension strategies, elements of literature, and expository text.

This quantitative, retrospective, quasi-experimental, nonequivalent control group research study was meant to determine if there was a difference between student high-stakes examination scores without a school-wide reading literacy plan (school year 2009-2010, control group) and student high-stakes examination scores with a school-wide reading literacy plan (school year 2010-2011, treatment group). Results of this study may assist teachers and leaders in education in making curricular decisions to implement instructional models successful in improving student achievement in reading.

## **Background of the Problem**

A significant reauthorization of the Elementary and Secondary Education Act of 1965 is the No Child Left Behind Act of 2001 [NCLB] (Differences Between the NCLB Act and the ESEA Renewal, 2010). The Arizona Department of Education (2011c) noted a requirement of NCLB is an accountability system to evaluate performance of public schools. By 2001, Arizona established state standards and AIMS, an exit examination measuring whether or not students meet state standards which also functioned as an instrument to hold schools, students, and teachers accountable for academic achievement

(Evans-Burr, 2009). In 2001, Arizona voters approved Proposition 301 which includes a state accountability system and, among other measures, holds the state of Arizona accountable for student performance (Arizona Department of Education, 2009).

Since implementation of NCLB and Proposition 301, the Arizona Department of Education developed an accountability system for public schools in Arizona called Arizona Leading Education in Arizona through the Reporting and Notification System [AZ LEARNS] (Arizona Department of Education, 2011c). AZ LEARNS measures proficiency, school progress, and student progress, with a focus on longitudinal change of student performance over a period of time (Evans-Burr, 2009). AYP complies with NCLB and provides single-year statistics of school performance (Arizona Department of Education, 2009). A component of evaluation for AZ LEARNS is AYP. In response to AZ LEARNS, the school district created an accountability plan.

The Arizona Department of Education (2011g) noted AYP determinations are based on three NCLB mandate measures: (a) "progress toward meeting the goal of 100% proficiency in state standards," (b) "percentage of students assessed," and (c) "additional indicators of school performance" (para. 3). High school graduation rates are also used as an indicator, and attendance is an additional indicator used at the elementary level. Meeting NCLB mandate measures for all students in all subject/grade combinations is a requirement for schools to meet AYP. School classifications regarding schools' achievement profile reflect meeting NCLB measures.

The Arizona Department of Education (2011d) noted the accountability system meeting NCLB measures is known as AZ LEARNS A-F Model, also known as A-F Letter Grade System, and thus titled the original AZ LEARNS as AZ LEARNS Legacy.

Prior to A-F Letter Grade System, schools in Arizona were evaluated, classified, and labeled according to the equation of the total score value under AZ LEARNS Legacy scale. Result of the equation became determination of whether or not a school met Academic Standards, and schools were labeled accordingly, with an achievement profile of excelling, highly performing, performing plus, performing, underperforming, or failing to meet Academic Standards, also known as AZ LEARNS Achievement Profiles (Arizona Department of Education, 2011a). The Arizona Department of Education (2011c) noted school years 2012-2013 included both letter grade profile and achievement profile label; however, in 2014, school profiles included only letter grades.

Achievement profiles capture the label of every school, and a measure in identifying a school under Title I legislation is the label of underperforming for two consecutive years. The Elementary and Secondary Education Act (ESEA) Title I of 1965 noted LEAs with concentrated student enrollment from low socio-economic areas including low-income, educationally disadvantaged students, received financial assistance. According to U.S. Department of Education (2004b), Title I of ESEA of 1965 (20 U.S.C. 6301 et seq.) was amended with 2001 NCLB to read Title I - Improving the Academic Achievement of the Disadvantaged, Section 101. The purpose of the amendment in Section 101 "was to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on State academic achievement standards and state academic assessments" (para. 1). Further, U.S. Department of Education's (2011c) Office of Student Achievement and School Accountability noted Part A of Title I ESEA provides financial

assistance to LEAs with high numbers of students from low-income families to assist learners in meeting academic standards (U.S. Department of Education, 2011c).

Title I schools in Arizona labeled underperforming for two consecutive years receive Federal Title I funds and must follow accountability measures of NCLB. Arizona's Accountability Plan includes a goal that schools operate at least at the performing level. Letter grades awarded to schools' achievement profiles as performing levels are A, which means a school demonstrated an *excellent* level of performance; B, which means a school demonstrated an *above average* level of performance; C, which means a school demonstrated an *average* level of performance; D, which means a school demonstrated a *below average* level of performance, and E, which are schools ranking as E schools for three consecutive years, placing a school in an improvement process by the Arizona Department of Education to receive additional support (Arizona Department of Education, 2011d).

The Accountability Plan for the school district in Arizona identified for this study reflects common goals of NCLB, AZ LEARNS, and 301 Site Plan. The goal of the district's Accountability Plan is students demonstrate grade level proficiency in reading, writing, and math (Tucson Unified School District, 2012a). The school district's Accountability Plan is partially guided by Arizona Revised Statute 15-704 (A.R.S. §15-704). Result of A.R.S. §15-704 was Arizona Reads, a comprehensive plan with a \$1,000,000 funding initiative in fiscal year 2002-2003 to improve reading achievement in Arizona (Arizona Department of Education, 2011b). Funds appropriated for Arizona Reads assisted school districts in training and development of teachers in reading

instruction and scientifically based reading research instructional methods (Arizona Department of Education, 2011f).

The Arizona Department of Education (2013) noted the goal of Arizona Reads is every Arizona child will learn to read proficiently by third grade and remain a proficient reader through the twelfth grade. With reading as the foundation to raise student achievement, learners will be prepared to succeed in school, in the workplace, and in life. (para. 1)

In 2004, the school district implemented Success for Children Action Plan, which aligns with goals for literacy improvement (Tucson Unified School District, 2006).

According to Success for Children Accountability Plan, the school district implemented and monitored strategies to increase school and district accountability (Tucson Unified School District, 2006). In 2007, the school district unveiled a Corrective Action Plan for further school improvement and accountability (Sanchez, 2007). Sanchez stated the Corrective Action Plan included a school accountability plan for each school, devised and implemented by principals and teachers, for which principal supervisors and subject experts performed academic audits at each school.

Responding to the Corrective Action Plan, the school district introduced a District-wide Literacy Plan. With the District-wide Literacy Plan, student expected outcomes aligned with goals of Success for Children Plan. Success for Children Plan goals included by 2010 (a) students must meet state reading and writing standards as measured by the AIMS examination, (b) an increase is evident in the number of students who meet the standards in reading according to the district's quarterly assessments, and (c) each student makes at least one year's progress in reading and writing according to

the district's quarterly assessments and the AIMS examination (Tucson Unified School District, 2006). Quarterly assessments might be considered formative assessments, while the AIMS examination might be considered a summative assessment.

AIMS 3-8 examinations are administered in grades three, five, eight, and might be considered formative assessments in preparation for AIMS High School, which might be considered a summative, high-stakes examination (Jorgenson, 1999). AIMS is considered a culminating summative assessment meeting federal examination requirements and once successfully completed, students earn the right to graduate high school. The Arizona Department of Education (2012d) noted AIMS covers content taught in ninth and 10<sup>th</sup> grades and is based on Arizona's Academic Standards and pre-Arizona's Common Core Standards. AIMS Reading is multiple choice and scored on the FAME scale, or performance level descriptors [falls far below the standard, approaches the standard, meets the standard, and exceeds the standard] (Arizona Department of Education, 2010b). The Arizona Department of Education further noted students who passed AIMS were categorized in exceeds the standard or meets the standard; students who failed AIMS were categorized in approaches the standard or falls far below the standard.

AIMS is administered in the spring to all 10<sup>th</sup> graders based on cohort and to all 11<sup>th</sup> and 12<sup>th</sup> graders who do not meet the standards, and to 11<sup>th</sup> and 12<sup>th</sup> graders who have met the standards and wish to retake AIMS to improve or exceed their score. AIMS is also administered in the fall to 11<sup>th</sup> and 12<sup>th</sup> grade students who failed to meet the standards, and to 11<sup>th</sup> and 12<sup>th</sup> grade students who have met the standards and wish to retake AIMS to improve or exceed their score. Students who are not successful in

passing AIMS on their first attempt have several additional opportunities, through the 12<sup>th</sup> grade, to test until they pass the examination (Arizona Department of Education, 2010b).

The AIMS examination is Arizona's compliance with NCLB, which outlines school year 2013-2014 as the timeline for student achievement of 100% proficiency in reading and mathematics (The White House, 2011a). However, a NCLB mandate that all students be 100% proficient by 2013-14 in reading/ Language Arts and mathematics became an unrealistic goal. The mandate was based on the premise students need to know and perform uniformly at the same level, and focusing on student outcomes will improve instruction (Menken, 2010). Yet, many students have scored below proficiency requirements, thus not meeting proficiency in reading/ Language Arts and mathematics, lowering school literacy rates.

Efforts to transform schools' literacy rates continued when in July 2009, the Obama Administration began the *Race to the Top* (RTTT) competition to reform schools. RTTT fund is a provision of the American Recovery and Reinvestment Act of 2009 (ARRA) and meant to stimulate sectors of the economy, create and sustain jobs, and fund education (Leighton, 2011). Particular to education, the Race to the Top Assessment Program, also referred to in this study as RTTT, is authorized under ARRA and provided \$4.35 billion to RTTT project grants for schools to invest in school reforms (U.S. Department of Education, 2010c). With an additional \$5 billion from the Obama administration, project grants were awarded to schools developing valid assessments to support and inform instruction, provide accurate information about students, and measure student achievement against college- and career-ready standards. Eligible schools also

had to have a system to recruit and retain excellent teachers and schools' educational leaders, systems for tracking students' progress, and a system for identifying effective teachers (Duncan, 2009). Priorities in RTTT are based on conceptual forms of learning that can result in strong academic outcomes (Leighton, 2011).

Reauthorizing ESEA in support of school reform, the Obama Administration presented A Blueprint for Reform: The Reauthorization of the Elementary and Secondary Education Act (ESEA Blueprint for Reform) in March 2010 (Jennings, 2010/2011). One way in which Arizona responded to ESEA Blueprint for Reform was with passage of Senate Bill 1286 which required Arizona to adopt a new A-F Accountability system (Arizona Department of Education, 2011h). The new accountability system is known as AZ LEARNS A-F Model, or A-F Letter Grade System. The Arizona State Board of Education adopted the final A-F Letter Grade System in June 2011, whereby weighted academic outcomes and growth are the same; i.e., a school is evaluated both on students' yearly academic growth and number of students who pass the AIMS examination yearly (Arizona Department of Education, 2011h). Beginning in 2012, entities are accountable only to the A-F Letter Grades system, replacing AZ LEARNS Legacy Achievement Profiles (Arizona Department of Education, 2011a).

Continuing literacy efforts, in 2010 the Arizona Department of Education adopted Arizona 2010 Academic Standards known as Common Core Standards, joined two common assessment consortia, and passed Senate Bill 1040. Common Core Standards resulted from coordination by National Governors Association (NGA) and Council of Chief State School Officers (Arizona Department of Education, 2012d). Common Core Standards are research-based and include professional input from leaders in education,

business, and research, as well as practitioners, teachers, and content experts. Common Core Standards include knowledge and skill content in which students need to be successful for entry-level college courses and in the workplace (Arizona Department of Education, 2012e).

Two common assessment consortia Arizona joined are National Center and State Collaborative and Partnership for Assessment of Readiness for College and Careers (Arizona Department of Education, 2010a). National Center and State Collaborative is a consortium of states working to develop alternate assessments aligning to college- and career-ready standards for students with severe cognitive challenges, and PARCC is a consortium of states, supported by a \$186 million government grant, with a goal of collaboratively developing a common K-12 next-generation assessment system for English/reading and mathematics (Partnership for Assessment of Readiness for College and Careers, 2011; U.S. Department of Education, 2010d). In Arizona, PARCC's next generation assessment was to replace AIMS by school year 2014-15, with AIMS examination content altered from Performance Objectives of 2003 Reading and 2004 Writing Arizona Standards to Arizona's Common Core Standards (Arizona Department of Education, 2012h). Awaiting proposals, Arizona withdrew from PARRC as a state assessment vendor in May 2014, and in November 2014, the Arizona State Board of Education voted to replace the AIMS beginning spring 2015 with *Arizona's* Measurement of Educational Readiness to inform Teaching (AZMerit), provided by vendor America's Institute for Research (AIR). AzMerit examinations will be gradelevel English Language Arts and Mathematics assessments for students in grades 3 through 8, and English Language Arts and Mathematics end-of-course assessments

measuring proficiency for students in high school (Arizona Department of Education, 2014e). Although elected officials from the November 2014 election oppose Arizona's College and Career Standards and intend to repeal the Common Core State Standards, Arizona's College and Career Standards adopted in 2010 remain standards implemented to measure student literacy (Arizona Department of Education, 2014a; Faller, 2014).

Student academic literacy entails classroom instruction, pedagogy, and guidance, strengthened by a robust system of teacher and principal evaluations, corresponding to goals of the Arizona College and Career Standards. Based on Senate Bill 1040 requirements, by December 15, 2011, the State Board of Education (SBE) must create and implement an evaluation instrument model for teachers and principals to include 33-50% of quantitative student data on academic progress, as well as quantitative data for both professional development focused on best practices and evaluator training (House of Representatives, 2010). Senate Bill 1040 also mandated LEAs use SBE instrument requirements to evaluate teachers and administrators on an annual basis beginning in school year 2012-2013 (House of Representatives, 2010). Arizona adopted Arizona Framework for Measuring Educator Effectiveness which requires by school year 2012-13, teachers and administrators be evaluated annually, and 33-50% of evaluation be based on student achievement (Arizona Department of Education, 2012b). Further, passage of SB 1040 allowed Arizona to meet requirements set by the Obama Administration and the U.S. Department of Education to apply for RTTT grants.

Responding to high percentages of schools not meeting NCLB target mandates and in addition to RTTT grants to assist literacy efforts, the Obama Administration released a blueprint for reauthorization of ESEA in September 2011, which provides

significant flexibility to states and LEAs from certain NCLB mandates preventing reform (The White House, 2011b). The White House (2011b) further noted regulatory flexibility allows states to be relieved from requirements of NCLB, and flexibility waivers granted when states submit a rigorous and comprehensive plan for which foci include areas to improve student educational outcomes, provide reform efforts to narrow or close academic achievement gaps, promote equity and quality instruction, promote demanding accountability, and ensure college- and career-readiness for students by high school graduation. One such waiver is flexibility of the 2013-2014 timeline for student achievement of 100% proficiency in reading and mathematics. Once granted, flexibility relieved states of requirements noting students be 100% proficient in English/reading and mathematics by 2014. States, however, remain responsible for student achievement, providing tailored and individualized interventions according to individual school, district, and student needs (The White House, 2011a).

Arizona's Department of Education set ambitious and achievable annual measurable objectives, complying with the waiver principle to develop and implement a system of differentiated recognition, accountability and support, which is noted to be one of four principles of the waiver (The White House, 2011a). Arizona's Department of Education complied with the waiver principle by proposing annual measurable objectives for school progress according to *growth to standard* and *growth to excellence* trajectories of every student within a school, and by February 2012, submitted a waiver proposal to the U.S. Department of Education (Arizona Department of Education, 2012f). With an ESEA waiver, Arizona moved to one aligned system of accountability, and the waiver aligned to federal requirements of ESEA's AYP and A-F Letter Grade System

accountability (Arizona Department of Education, 2012f). The Arizona Department of Education (2012f) noted Arizona's ESEA waiver eliminated requirements to determine AYP. However, although by a different title, whether A-F Letter Grade System or Adequate Yearly Growth, AYP remains in the equation as a measurement of accountability of school success. For this study, AYP remained the system describing school performance.

The accountability system that might replace AYP is one of growth models within the A-F Letter Grade System. Jennings (2010/2011) stated growth models measure longitudinal student growth rather than aggregate performance of students against a set of achievement goals. Growth models measuring individual student progress continue to include performance targets, with student progress by 2020, including college- and career-ready students by Grade 12 in high school (Jennings, 2010/2011). Arizona submitted a RTTT grant application and by December 2011 and round three of fund awards, received \$25 million to benefit Arizona schools in preparing college- and career-ready students by Grade 12 in high school. RTTT funds are targeted for implementation of rigorous state education standards and education goals in literacy and high school graduation rates (Arizona Department of Education, 2012a).

Students are required to meet state standards in reading and mathematics and Arizona's ESEA waiver goal for *Student Growth Targets* specifies by Grade 10, students will be on track to graduate college- and career-ready (Arizona Department of Education, 2012f). Arizona must set ambitious, but achievable, annual measurable objectives for every grade level and every subject evaluated, extending current NCLB goal of 100% proficiency by 2014 to 100% proficiency by 2020 (Arizona Department of Education,

2012f). The Arizona Department of Education further noted annual measurable objectives include yearly growth in fractions of students passing the AIMS high-stakes examination. One indicator of meeting AYP is that an entity must meet annual measurable objectives for mathematics and reading in every grade and for all subgroups evaluated: the five major ethnic groups (African American, Asian Pacific Islander, Hispanic, Native American, and White), English Language Learners (ELL), Students with Disabilities, and Students from Low-income Families (Arizona Department of Education, 2011g). Other indicators of making AYP include percentage of students assessed, graduation rates, and attendance rates (Arizona Department of Education, 2009). A-F Letter Grade System components include growth of all students, growth of lowest performing students, and measure of academic progress. A measure of academic progress includes percent of students passing AIMS, percent of English Language Learners reclassified, graduation rate, and dropout rate (Arizona Department of Education, 2011d).

In August 2011, a superintendent of a large school district in Arizona sent a letter to parents within the district stating the Arizona Department of Education identified the school district for Title I Local Education Agency Improvement. Pedicone (2011) noted according to NCLB guidelines and state accountability system, the school district's local education agency did not meet AYP for two consecutive years in the same indicator and across all grade-spans. In school year 2010-2011, the school district met three indicators and did not meet objectives for reading and mathematics, thus AYP was not met. Table 1 shows the 2011 AYP determination for the school district which reflects four additional

indicators used to measure the school district's local education agency's AYP other than percentage of students meeting or exceeding AIMS (Pedicone, 2011).

Table 1

A school district in Arizona's 2011 AYP Determination

Met Percent Tested?	Yes
Met Test Objectives in Reading or Math?	No
Met 90% Attendance Rate?	Yes
Met Graduation Rate?	Yes
Made AYP?	No

Table 2 provides a comparison of students' reading and mathematics proficiency levels in the school district's local education agency and in the state as required by NCLB (Pedicone, 2011).

Table 2

Arizona School Districts Comparison Chart

Grade	School District	School District	Arizona	Schools
	Percent	Percent	Percent	Percent
	Proficient in	Proficient in	Proficient in	Proficient in
	Mathematics	Reading	Mathematics	Reading
3	62	69	68	76
3	02	0)	00	70
4	56	71	65	75
_				
5	51	74	63	79
6	39	72	59	81
7	43	74	61	82
0	20	60	5.4	7.1
8	39	62	54	71
10	54	76	60	78
		, 0		, 0

The general problem is not all Arizona schools meet annual measurable objectives and do not make adequate yearly progress (U.S. Department of Education, n.d.b). Students' high-stakes examination scores are part of the equation for a school to meet annual measurable objectives and make adequate yearly progress. Certain high schools in the large school district in Arizona failed to make adequate yearly progress, which affected the school district's schools because if students or a group of students do not meet an indicator, the local education agency does not make AYP. Schools particularly

affected are those with high enrollments of ethnic and racial minorities, English Language Learners (ELLs), disabled students, and economically disadvantaged learners, and are usually labeled Title I schools. Although Arizona's flexibility through waivers of specific provisions of NCLB relieved the most notable mandate of the 2013-2014 timeline for achieving 100% proficiency of students in state standards for reading and mathematics, students' high-stakes examination scores must continue to show gains in achievement and academic growth (Arizona Department of Education, 2012f; The White House, 2011a).

The large school district's district-wide literacy plan existed to assist students' achievement and academic growth, meeting demands of AIMS with passing scores necessary to graduate from high school. A common goal of the district-wide literacy plan and Arizona's ESEA Flexibility Waiver align, whereby student achievement must be evident with students meeting state standards to pass AIMS, growth to meet standards, or growth to exceed in meeting standards, including every student must be on track for college and career readiness, therefore defining closing achievement gaps for *every* learner (Arizona Department of Education, 2012f). The Arizona Department of Education (2012f) further noted Student Growth Targets account for each student's trajectory toward either a *growth to standard* or *growth to excellence* target and determine whether students are proficient or on their way to be proficient by Grade 10. Arizona's ESEA Flexibility Waiver data are calculated for all students and student subgroups (Pedicone, 2011). Similarly, components of A-F Letter Grade System place equal value on current year achievement and academic growth, including growth of all

students, with a strong focus on schools' lowest achieving students (Arizona Department of Education, 2011a).

States remain responsible for students' academic achievement evidenced by goals of academic growth through accountability systems. The amount of students in a large school district in Arizona's Title I schools not meeting academic achievement necessary to pass AIMS might have been an indication of misalignment of district goals for success of all students. Graduation rates will decrease significantly if students cannot pass AIMS or any other high-stakes measure, or if AYP becomes the system whereby measure is longitudinal individual student growth, and students do not demonstrate individual progress. Closing learning gaps for students with reading comprehension skill deficiencies remains a challenge in Arizona, despite A.R.S. §15-704 with goals of improving reading achievement in Arizona and attributes of reading literacy plans.

Several key actions, or attributes, are vital in sustaining both a school-wide reading literacy plan and a district literacy plan through transitions in leadership and continual evolution: maintaining the vision, expanding leadership capacity, providing opportunity for stakeholders to give feedback, strengthening an already strong foundation of strategies with successful research-based additions, and supplying resources needed for stakeholders to implement strategies successfully (Witte, Beemer, & Arjona, 2010). When key actions are missing, a literacy plan might become unsustainable, exacerbating a reading literacy problem. Several contributing factors existed that might have diminished opportunities for the large school district in Arizona to meet annual measurable objectives. For example, possibilities might have been misalignment between the school district's goals and student achievement in regard to literacy gains,

lack of leadership consistency, and lack of adequate professional training for educators in literacy instruction of racial and ethnic minority students, ELLs, disabled students, and students from economically disadvantaged backgrounds. Another possible contributing factor in the problem of low reading literacy achievement might have been teachers' lack of qualifications.

Additionally, lack of continuity in a literacy plan does not contribute to student achievement and may lead to fragmented teacher instruction, whereby instruction might not be relevant, rigorous, and might lack research-based strategies. Focus on literacy strategies changing yearly is also not consistent with a successful literacy plan, exacerbating the challenge of lower literacy skills among disadvantaged student populations. Finally, although NCLB regulatory flexibility of September 2011 by the Obama administration began an effect during the 2011-12 academic school year and was a relief to schools identified as *failing*, students in low-performing schools remained in need of reaching the school district's Success for Children goal, which included students make a minimum of one year's progress in reading as measured by district quarterly assessments and in the AIMS examination (Tucson Unified School District, 2006). Aligning with Success for Children's goal, the 301 Site Plan goal of the school district's low performing high school in this study was to increase promotion rates by an average of 3% for each grade per year by improving literacy of all students through implementation of a school-wide literacy plan (Tucson Unified School District, 2009).

This research study contributed to the body of knowledge by providing data showing underperforming student gains, or lack thereof, in the state-mandated examination through use of a school-wide reading literacy initiative including vocabulary

strategies. Vocabulary instruction and knowledge is an essential factor for literacy success of students from low-income backgrounds (Sinatra, 2008). By providing a school-wide reading literacy initiative, a school might tailor reading intervention for Title I students. Advanced or higher vocabulary knowledge is a deficit in low-income students. Sinatra stated students living in poverty enter school with learning deficits and continue to struggle with academics and literacy throughout school.

This study provided a means of intervention focused on vocabulary and comprehension strategies, elements of literature, and expository text. The literacy plan's concentration was on teachers guiding their instruction on the 12 powerful words identified as most difficult for students to comprehend in standardized examinations, and UNRAAVEL reading strategy to assist students' reading comprehension, particularly on standardized tests (Bell, 2005; Park Hill School District, 2014). Park Hill School District (2014) noted UNRAAVEL is a reading strategy to assist students to organize and identify information on reading passages, and an acronym for:

Underline the title, Now predict the topic and main ideas, Run through and number the paragraphs, Are you reading the questions?, Are the important words circled or highlighted?, Venture through the passage, Eliminate incorrect answers, Let the questions be answered, and write the paragraph number where you found the answers. (p. 1)

## **Purpose of the Study**

The purpose of the current quantitative, retrospective, quasi-experimental, nonequivalent control group study was to identify differences in achievement between students taught with reading literacy plan strategies and students taught through

traditional methods. Demands on student academic growth continue, and current educational reform demands effective instructional strategies, particularly in reading (Stichter, Stormont, Lewis, & Schultz, 2009). Strategic pedagogies that include effective instructional strategies within a reading literacy plan could produce increased reading achievement.

A quantitative, retrospective, quasi-experimental, nonequivalent control group design was used in this study. In a quasi-experimental design, control exists over the independent variables (Black, 1999). In this study, I, as a teacher, participated in the school-wide, interdisciplinary reading literacy plan. A quasi-experimental design also includes samples not completely randomly selected because of practicality situations, which could reduce generalizability of a study's results (Black, 1999). This study included high school students who were not randomly selected because in a nonequivalent control group design, a researcher must use intact groups, such as groups of students in a classroom setting (Salkind, 2003). A nonequivalent control group design is used when random assignment is either impossible or not feasible, or extremely difficult to assign learners randomly to groups (Salkind, 2003). Retrospective pre-test and post-test scores were examined: AIMS examination scores of intact, nonequivalent groups of 741 10<sup>th</sup> grade students and subgroups of students were analyzed for this study.

## Significance of the Study

Since NCLB and key components of accountability, federal role has expanded in education and affected reading in schools across the country. School districts and individual schools are held accountable for student progress in learning to read (Savage, 2011). As of this study, high-stakes standardized examinations are used for

accountability purposes. Results of this study might provide clarity on the relationship between a well-implemented reading literacy plan and student performance on high-stakes examinations, and the effect a well-implemented reading literacy plan might have on that relationship.

Benefits to substantiating a reading literacy plan's effectiveness in one urban, federally funded Title I high school in southeastern Arizona are multi-faceted. Results of this study may be significant to administrators, teachers, parents, and students because results may offer possible solutions for improving student achievement and academic growth in reading in Title I schools. As of school year 2012-2013, the school district's Title I schools included 52 elementary schools, 35 middle schools, and seven high schools (Tucson Unified School District, 2012c). Under NCLB and Arizona's accountability system, the school district's LEA did not meet AYP for two consecutive years. Results from an AYP determination for the school district showed the school district did not meet test objectives for reading and mathematics; therefore, the Arizona Department of Education identified the large school district in Arizona for Title I Local Education Agency Improvement (Pedicone, 2011).

When a school does not meet at least minimal state mandated level of growth, ranking in lower levels of an accountability system will continue; schools continuing to have low achievement profiles in the A-F Letter Grading System are placed under school improvement process by the Arizona Department of Education, which in turn provides additional support and resources for improvement of under-performing schools (Arizona Department of Education, 2011h). To raise student literacy, administrators must evaluate and implement best instructional practices and research-based instructional methods and

strategies within their educational institutions for a school improvement plan. A low-performing school's achievement profile might improve with a well-implemented school-wide reading literacy plan that includes administrator and teacher evaluations in which quantitative student achievement data are appropriately collected and organized and comprise a percentage of the evaluations. Personnel who fail evaluations risk termination, yet positive school leadership, guidance, and school culture might prevent such terminations. Finally, the study is significant to parents and students because results may offer a reading intervention that might raise student achievement.

This study presented results from a Title I school-wide literacy plan focusing on reading scores of the AIMS high-stakes examination. Student academic growth, or lack thereof, in the reading portion of the examination was established, and school leaders could use results of this study to make research-based decisions about implementing a school-wide reading literacy plan. The study offered a test of applicability of a school-wide, interdisciplinary reading literacy plan which can serve as a base for teachers and school leadership to plan and successfully implement a school-wide reading literacy plan with use of research-based instructional strategies. Results of this study can serve as a guide to educational leaders in assessing aspects of school-wide literacy plans, identifying areas of improvement, and making necessary corrections. If a successful school-wide, interdisciplinary reading literacy plan can be used as a reading intervention to raise student achievement, results can motivate Title I students and parents in achieving student academic growth in reading.

# Significance of the Study to Leadership

Systematic changes involved with increased literacy rates include implementation of a school-wide literacy plan (Witte et al., 2010). When students in Title I schools are immersed in literacy efforts, a well-implemented school-wide, interdisciplinary literacy plan may improve their literacy skills. Higher scores on a state's reading assessment might indicate student achievement and academic growth with enhanced instruction of a school-wide literacy plan. A systematic literacy effort can be a powerful lever to drive a school improvement effort (Irvin, Meltzer, Mickler, Phillips, & Dean, 2008).

Results of this study might provide worthwhile information to leaders in educational institutions, scholars, administrators, teachers, teacher-leaders, practitioners, and stakeholders about effective school-wide reading literacy plans increasing reading proficiency. Significance of results of this study might assist with appropriate implementation of effective reading instructional practices. Educational leaders, administrators, scholars, practitioners, and teachers in underperforming schools must view literacy critically and adopt reforms supported by scientifically based research, and creating and implementing various literacy approaches to attain improvement (Fleischman & Heppen, 2009; Gomez, 2005). Results of this study may offer solutions for improving student achievement and academic growth in reading in Title I schools, and may also inform parents and students as participating stakeholders who might consider a well-implemented school-wide reading literacy plan a pathway toward literacy.

# **Research Questions**

The research components of the present study were a school-wide, interdisciplinary reading literacy plan and high-stakes examination reading scores. Quantifiable variables comparing differences were used in the research questions of this study. The research questions arose from personal professional experience and linked to existing theories. According to Black (1999), "Usually research questions arise from personal professional experience and the 'better' ones will be based upon not only observations, but also links made between those observations in real life and existing theories" (p. 30). This study was aligned with quasi-experimental research to explore the applicability of a curricular intervention to address academic achievement in an underperforming school.

The general problem is not all Arizona schools meet the annual measurable objectives and do not make adequate yearly progress (U.S. Department of Education, n.d.b). Students' high-stakes examination scores are part of the equation for high schools to meet annual measurable objectives and make adequate yearly progress. The specific educational issue examined in this study was the difference between high-stakes examination scores of students who received and students who did not receive instruction from a school-wide reading literacy plan focusing on vocabulary and comprehension strategies, elements of literature, and expository text.

High-stakes examination scores were compared, and improvement, or lack thereof, was evaluated by comparing performance of successive cohorts of students, including some student subgroups. Cohorts included 10<sup>th</sup> grade students in school year 2009-2010 compared with 10<sup>th</sup> grade students in school year 2010-2011. Specifically,

this research study was an effort to compare benchmark assessments (pre-test) and AIMS (post-test) examination scores of a control group in one high school without the enhanced instruction of a reading literacy plan, and the benchmark assessments and AIMS examination scores of a treatment group in the same high school with the enhanced instruction of a reading literacy plan. Student performance of each group was compared through statistical analyses.

The study determined whether a significant difference existed between reading achievement scores of 10<sup>th</sup> grade students, and some subgroups of students, taught using enhanced instruction through a school-wide reading literacy plan intended to increase reading achievement and scores of students taught using traditional instruction.

Subgroups of students included five major ethnic groups (African American, Asian Pacific Islander, Hispanic, Native American, and White), English Language Learners (ELLs), Students with Disabilities, and Students from Low-income Families (Arizona Department of Education, 2011g). Students and subgroups evaluated in this study were major ethnic groups, English Language Learners (ELL), and Students with Disabilities. Therefore, the following research questions guided the retrospective, quasi-experimental research study:

RQ1: What is the degree of difference between the pre-test and post-test scores of the cohort of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the cohort of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

RQ2: What is the degree of difference between the pre-test and post-test scores of the English Language Learner subgroup of students who received regular instruction

without the strategies of the school-wide reading literacy plan, and the English Language Learner subgroup of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

RQ3: What is the degree of difference between the pre-test and post-test scores of the Students with Disabilities subgroup of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the Student with Disabilities subgroup of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

### **Hypotheses**

This study of literacy plans and reading achievement to comply with accountability measures sought to identify differences between scores of a control group which received regular instruction without strategies of the school-wide reading literacy plan, and a treatment group which received enhanced instruction using strategies of the school-wide, interdisciplinary reading literacy plan. Sparrowe and Mayer (2011) stated a hypothesis claims a dependent variable is logically connected to an independent variable, thus, predicting results. The hypotheses tested were the following:

H<sub>0</sub>1: There is no difference in the reading pre-test and post-test scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the cohort of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>A</sub>1: There is a difference in the reading pre-test and post-test scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading

literacy plan, compared to the pre-test and post-test scores of the cohort of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>0</sub>2: There is no difference in the reading pre-test and post-test scores of the English Language Learner subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the English Language Learner subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>A</sub>2: There is a difference in the reading pre-test and post-test scores of the English Language Learner subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the English Language Learner subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>0</sub>3: There is no difference in the reading pre-test and post-test scores of the Students with Disabilities subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the Students with Disabilities subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>A</sub>3: There is a difference in the reading pre-test and post-test scores of the Students with Disabilities subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the Students with Disabilities subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

#### Theoretical Framework

Gredler (2009) asserted no single theory can adequately account for all learning; theories describe particular features of learning or cognitive development and focus on identifying factors leading to identified outcomes. Gredler further stated the purpose of a theory is to identify real-world events required for learning, and learning theories should provide an explanation of underlying psychological phenomenon that influence learning. Dewey (1938) asserted education is about recognizing student needs. According to Dewey,

what we want and need is education pure and simple, and we shall make surer and faster progress when we devote ourselves to finding out just what education is and what conditions have to be satisfied in order that education may be a reality and not a name or a slogan. (pp. 90-91)

Dewey (1938) stated educational goals are accomplished when learning is student-focused, and classroom experiences engage students, which promotes desirable future experiences. Dewey asserted teacher guidance to assist students in exercising their intelligence is an aid to freedom. Using a student-centered focus with reading strategies and active participation assisting students' reading comprehension could aid in students' reading literacy, facilitating student achievement scores on high-stakes examinations.

Many theoretical foundations of learning theories are related to Dewey's educational theory, and some provided the framework for the study of reading literacy plans. The reader response theory, the cognitive theory of development, and the Rigor/Relevance Framework theory provided the theoretical framework for this study.

The reader response theory broadens student reading comprehension. Vacca and Vacca (2008) stated the reader response theory evolved from a literary tradition in which reading theorists, such as Louise Rosenblatt argued, as early as 1938, literary interpretation is composed of both thought and feeling. Vacca and Vacca further stated informational text and literary text demand readers' responses be both affective and intellectual. Readers take an efferent stance when they focus attention on ideas and information in a text; readers take an aesthetic stance when their response to text is driven by personal feelings and attitudes. Vacca and Vacca asserted a reading instructional strategy to encourage reading comprehension is teaching that takes advantage of both efferent and aesthetic student stances, or the reader response theory. The reader response theory engages students, is student-focused, and may promote desirable future experiences in literacy, as Dewey (1938) posited.

Miller (2007) stated object concept and conservation represent invariants: aspects of the world staying the same even though other, more obvious aspects change. The cognitive theory of development stemmed from Jean Piaget's research career, in which he was interested in invariants a child understands at different points in development. Gredler (2009) posited that according to Gagné (1968a), readiness is not a matter of maturation in which certain growth changes must take place before learning can occur, nor is readiness a gradual internalization of logical forms of thought. Instead, new learning refers to availability of prerequisite capabilities and includes lower skills and essential rules, concepts, and part-skills in procedures. The cognitive theory of development, therefore, applies to reading literacy in that students learn best when they are actively engaged with the content, and the teacher understands and instructs

according to prerequisite correlations among concepts associated with student cognitive development that assists content comprehension (The Danielson Group, 2013).

Thus, the cognitive theory of development supports the ideal that as reading literacy enhances, so do lower skills and essential rules upon which literacy is built. Further, active participation reading strategies build on students' cognitive development. Active participation strategies provide student engagement for comprehension of content (Alabama Reading Initiative Secondary Team 2007, 2009). Dewey (1911) stated "... growth cannot go in a vacuum. As the body requires air and food, so mind and character require a culture medium in order to develop" (as cited in Cahan, 1992, p. 422). Thus, active participation reading strategies become basic to not only simpler reading content according to students' cognitive development, but subsequently, also to more advanced reading content for which active participation strategies can provide students with stimulation needed to produce learning in vocabulary and comprehension strategies, elements of literature, and expository text.

The Rigor/Relevance Framework theory, developed by staff of the International Center for Leadership and based on higher standards and student achievement, examines curriculum, instruction, and assessment (International Center for Leadership Education noted the first level of higher standards and student achievement of the Rigor/Relevance Framework is based on six levels of Bloom's Taxonomy. Bloom's Taxonomy suggests six different stages in learning, from lowest level of simple recall or recognition of facts to evaluation, which is the highest level (Bloom, 1956). The International Center for Leadership Education (2012b) noted the second level of higher standards and student achievement of

the Rigor/Relevance Framework is the Application Model, with five levels describing putting knowledge to use. Levels of knowledge begin with knowledge in one discipline to applying knowledge to solve complex real-world situations.

The Rigor/Relevance Framework has four quadrants: the lower two quadrants include acquisition and application, and the top two quadrants include assimilation and adaptation, each progressing from the simplest understanding of knowledge to more complex thinking. The Rigor/Relevance Framework is connected to the 3 R's of instruction theory, which is a framework that can produce a more complex, comprehensive understanding of instructional practice (Wagner & Kegan, 2006).

Wagner and Kegan stated the 3 R's, rigor, relevance, and respectful relationships, are vital to defining a framework for effective instruction. Wagner and Kegan clarified definitions of rigor, relevance, and respectful relationships in educational settings.

According to the authors, rigor entails students mastering core competencies and assists in defining what students can do as a result of a lesson, as well as encouraging more in-depth and complex understanding of a lesson's content. Relevance is congruency of curriculum to real-world applications, and a type of respectful relationship includes teachers motivating students to achieve at high levels of academic outcomes through quality student/teacher relationships (Wagner & Kegan, 2006). Dewey and Maslow confirm rigor and relevance include social organization and human needs be defined and met for optimal academic success through rigor and relevance of curriculum and instruction. Dewey (1938) stated like any theory, philosophy of education must be "framed with reference to what is to be done and how it is to be done," for which the "result is a plan for deciding upon subject-matter, upon methods of instruction and

discipline, and upon material equipment and social organization of the school" (p. 28). Maslow (1943) stated in the hierarchy of human needs, emotional survival is paramount to academic survival.

Educators must equip themselves and their students to accomplish literacy goals and effective instruction that includes rigor (Moore, Hinchman, & Vacca, 2006).

However, rigor is powered in combination with relevance and respectful relationships (Wagner & Kegan, 2006). Wagner and Kegan posited the 3 R's theory assists in focusing discussions, making group communications on several instructional dimensions more likely. When the 3 R's concept is specified in meaningful terms and the human needs component of the 3 R's are met, reading literacy might become a surmountable task for students.

Dewey (1938) stated educational theory is challenged by opposition, and "education is a process of overcoming natural inclination and substituting in its place habits acquired under external pressure" (p. 17). NCLB evolved because of opposition and might be connected to Dewey's statement regarding new education and progressive schools as products of discontent with traditional education. Since NCLB, American schools have been under scrutiny to meet standards of accountability, with performance measures intensifying and escalating consequences for not achieving academic benchmarks (Hines et al., 2007). With aims of closing achievement gaps, NCLB does not decree how schools should achieve academic success, nor does NCLB dictate precise reading programs or methods a school must use, only that methods be research-based (Zakierski & Siegel, 2010). Emphasis on accountability requirements is highest in low-performing schools (Hanushek & Rivkin, 2010).

In an examination of texts, Moore et al. (2006) found providing literacy support services can result in high reading comprehension. Student support services include access to various reading materials. Other services include instructional motivators encouraging desire for students to read increasingly complex materials, and assessments showing reading strengths and weaknesses. Moore et al. further asserted teachers and reading specialists who model reading and provide specific instruction in reading comprehension can be included in student support services resulting in high reading comprehension. Teacher practices fostering respectful relationships and understanding individual adolescent readers, and communities supporting efforts to achieve advanced levels of student literacy, can also result in students' high reading comprehension. Moore et al. further asserted students must be provided opportunities to succeed in high-stakes examinations, and to participate ultimately in a meaningful way in an increasingly literate society. Thus, the theoretical framework and intent of this study, which promotes reading literacy, presented the need for additional research in reading achievement and reading literacy through a school-wide, interdisciplinary reading literacy plan.

#### **Definition of Terms**

The following definitions applied to this study:

Accountability "refers to an individual or a group of individuals taking responsibility for performance of students on achievement assessments or other types of educational outcomes," such as graduation rates (National Center on Educational Outcomes, 2012, para. 1).

Adequate Yearly Progress is one main feature of No Child Left Behind Act of 2001 (NCLB), which "requires each state to develop a plan that addresses academic

standards, academic assessments, and accountability" and "holds local districts accountable for student achievement and for ensuring adequate yearly progress [AYP]" (Schimmel, Fischer, & Stellman, 2008, p. 145). AYP measures how well a school has performed annually on state standards as measured by state assessment student scores.

High-stakes examination refers to a required annual test of all students enrolled in public schools and in certain grades. Individual states must use test results as a school rating device and stakes are high because of their life-changing significance of consequences attached to test scores, such as consequences of low scores include failure to be promoted, failure to graduate high school, or denial of scholarship monies (Duncan & Stevens, 2011). The Arizona's Instrument to Measure Standards (Arizona's Instrument to Measure Standards) is the high-stakes test in this study.

Literacy plan refers to a roadmap including a framework and implementation outline and is meant to ensure that learning is maximized through a plan transitioning logically from a literacy framework to an articulated, comprehensive action plan defining performance measures and specific outcomes (Arizona Department of Education, 2012g). The literacy plan in this study is a reading literacy plan focusing on vocabulary and comprehension strategies, elements of literature, and expository text.

No Child Left Behind (NCLB) Act of 2001 refers to an amendment to the Elementary and Secondary Act of 1965 and represented significant federal government involvement in education (Schimmel et al., 2008). In 2002, former President George W. Bush signed into law NCLB, which reflected a bipartisan commitment to ensure that all students, regardless of their background, received a quality education. NCLB redirected education programs to focus on stronger accountability, additional educational choices

for parents and students, more flexibility for states and school districts, and extended use of research-based instructional strategies and methods (U.S. Department of Education, 2005a).

# **Assumptions**

Seven significant assumptions guided this study. One assumption was AIMS examination results for school years 2009-2010 and 2010-2011 were accurate and factual. The premise for this assumption was dependent upon expertise of the Arizona Department of Education. The second assumption was accurate student enrollment data from the high school in this study. The premise for this assumption was on factual and accurate information of the high school's registrar and school district's department of accountability and research. Without actual and factual examination and enrollment data, statistical results are not accurate.

The third assumption was statistical analysis would reveal enhanced instruction through a school-wide reading literacy plan could have a statistically significant influence on student scores of the reading section of the AIMS examination. The premise for the third assumption was research and publications in the field by the education sector, such as the Arizona Department of Education, the U.S. Department of Education, and the Striving Readers Comprehensive Literacy program. Without the assumption of improved scores on the reading section of the high-stakes examination, enhanced instruction through the school-wide reading literacy plan would not have occurred. The fourth assumption was pre-test (benchmark examination), and post-test (AIMS examination) measured same standards and used the same scoring system. The premise for this assumption was school district's benchmark examinations were intended to prepare

students for the AIMS examination by using the same standards and scoring system.

Both the Measure of Educational Progress (pre-test) and AIMS (post-test) examination measure the same standards and use the same scoring system.

The fifth assumption was equal level of complexity in content and literacy of standards between benchmark and AIMS examinations. The premise for this assumption was school district's benchmark examination is intended to be as rigorous as the AIMS examination. The benchmark examination prepares students for AIMS examination. The sixth assumption was strong validity and reliability between benchmark and AIMS examinations were not significantly different. The premise for this assumption was school district personnel were knowledgeable in creating the benchmark examination with validity and reliability measures of the AIMS examination. Professionalism of district leadership is assumed in selecting district personnel knowledgable and expert in creating benchmark examinations paralleling the validity and reliability of the AIMS examination.

The seventh assumption was cohorts were successive with a pre-test and post-test assessing same standards from one school year to the next. The premise of this assumption was cohorts were naturally successive from one school year to the next, and assessments remained constant from one year to the next. The successive cohort selection was significant in identifying differences between two chronologically close groups; one group without enhanced instruction immediately followed by another with enhanced instruction, for the purpose of this study's validity.

# Scope, Limitations, and Delimitations

# Scope

This quantitative, retrospective, quasi-experimental, nonequivalent control group research study was an attempt to determine the effectiveness of a reading instructional approach. Scope of this study was a retrospective assessment of 10<sup>th</sup> grade student scores on reading benchmarks and reading section of the AIMS examination, with and without a reading literacy plan. The scope included test scores of intact groups of successive cohorts of students, as well as some subgroups of students. Subgroups of students from both cohorts included in benchmark and AIMS examination results were five major ethnic groups (African American, Asian Pacific Islander, Hispanic, Native American, and White), English Language Learners (ELLs), Students with Disabilities, and Students from Low-income Families (Arizona Department of Education, 2006).

This study included retrospective standardized benchmark and AIMS examination scores of 10<sup>th</sup> grade students; student scores from school year 2009-2010 were compared with student scores from school year 2010-2011. Scores were retrieved retrospectively from public archived databases from the Arizona Department of Education, the school district's Department of Accountability and Research, and from the high school's English Department teacher-leader who collected data in a record-keeping format as the central data collector for the school-wide, interdisciplinary reading literacy plan. Hypotheses were tested by statistical analyses.

#### Limitations

Limitations of a study involve identifying weaknesses; no research study can be perfect, and good researchers report weaknesses along with strengths of their research

(Leedy & Omrod, 2010). This research study included several limitations. First, the quasi-experimental design is not a true experimental, whereby assigning participants randomly to a group is impossible, weakening cause-and-effect relationship between variables (Salkind, 2003). This study used intact groups, i.e., classrooms of students in one high school, for which equivalence among groups was questionable, immediately decreasing the design's power to establish a causal relationship (Salkind, 2003). Second, population and samples of this study were from one high school. Generalizability would increase if more high schools were included as part of this study.

The third limitation of this study examined available retrospective student benchmark (pre-test) and AIMS (post-test) scores of 10<sup>th</sup> grade students who had much at stake: pass the high-stakes examination to ensure high school graduation. Fourth, interpretation of results was limited to test scores from the reading section of the AIMS examination of one high school, decreasing generalizability because of exclusion of student test scores from the reading section of the AIMS examination from other high schools or districts. Fifth, the Title I high school in this study was limited to the population of a Title I school and generalizability may be limited to similar racial, ethnic, and socio-economic populations.

Sixth, the limitation of the confounding variable was school leadership. Creswell (2005) stated confounding variables are those not easily measured because effects cannot be distinctly differentiated from the others, albeit confounding variables may be direct influences between dependent and independent variables. Witte et al. (2010) noted certain attributes or characteristics are vital in sustaining a school-wide literacy plan through transitions in leadership and continuous evolution. Attributes, or characteristics,

include maintaining the vision, expanding leadership capacity, and providing opportunity for stakeholders to give feedback. Further, strengthening a foundation of strategies with successful research-based additions and supplying resources needed for stakeholders to implement strategies successfully, comprise attributes necessary in sustaining a school-wide literacy plan. School leadership must assist faculty with what is needed for improvement of teacher practice, which will in turn result in increased student achievement (Cobb, 2005).

#### **Delimitations**

The current research study did not include evaluating irrelevancies to the problem. The focus of this quantitative, retrospective, quasi-experimental nonequivalent control group research study was meant to determine if there was a difference between student high-stakes examination scores with and without a school-wide reading literacy plan. A delimitation that applied to this study was measurement of student reading skills by one instrument, the state's high-stakes AIMS examination. AIMS may not be the most effective instrument to measure reading skills of subgroups evaluated, which were five major ethnic groups (Hispanic, White, African American, Asian Pacific Islander, and Native American), English Language Learners (ELL), Students with Disabilities, and Students from Low-income Families (Arizona Department of Education, 2011g).

Another delimitation was monetary compensation to teachers for complying with implementing the school-wide, interdisciplinary reading literacy plan. With or without compensation, implementation was mandatory. Finally, a delimitation of teacher qualifications as reading specialists or as reading teachers was not addressed. A reading specialist or reading teacher requires distinct certifications or endorsements, and the

school-wide, interdisciplinary reading literacy plan was implemented regardless of additional certifications a teacher might have possessed.

### Summary

Chapter 1 addressed the history of ESEA and includes current NCLB flexibility reform. Arizona accountability systems are explained concerning schools and the large school district in Arizona not making AYP. As a result of state and federal accountability systems and high-stakes examination scores, a school-wide reading literacy plan was implemented in one urban, Title I high school in southeastern Arizona, to measure differences in scores of two successive cohorts. The study's significance to leadership was discussed, as were the study's scope, limitations, and delimitations.

Chapter 2 reviews most current research at the time of this study and considers factors that may influence student achievement and growth with implementation of a literacy plan. The structure of literature review aligns with conceptual framework of ESEA, NCLB, and Arizona Standards, and Literacy Plans. Major sections within Chapter 2 include ESEA, NCLB, AYP, Accountability Systems, Literacy Plans, Common Core Standards, Senate Bill 1040, PARCC, and The National Center and State Collaborative. Review of literature reflects the significant knowledge and research on reading and NCLB, and support of literacy plans.

#### CHAPTER 2

#### LITERATURE REVIEW

The purpose of the current quantitative, retrospective, quasi-experimental nonequivalent control group study was to identify differences in achievement between students taught with reading literacy plan strategies and students taught through traditional methods. A quantitative, retrospective, quasi-experimental nonequivalent control group study was conducted using archived standardized test scores of intact groups of a total 741 10<sup>th</sup> grade students and subgroups of students. This research study was an effort to examine AIMS examination scores of a control group comprised of 307 students in one high school without enhanced instruction of a reading literacy plan, and test scores of a treatment group comprised of 434 students in one high school with the enhanced instruction of a reading literacy plan. Student performance of each group (i.e., pre-test, benchmark scores between two cohorts of 10<sup>th</sup> grade students with and without enhanced instruction of the reading literacy plan, and post-test, AIMS scores between two cohorts of 10<sup>th</sup> grade students with and without enhanced instruction of the reading literacy plan) was evaluated through statistical analyses.

The general problem is not all Arizona schools meet the annual measurable objectives and do not make adequate yearly progress (U.S. Department of Education, n.d.b). Students' high-stakes examination scores are part of the equation for a school to meet annual measurable objectives and make adequate yearly progress. The specific educational issue examined in this study was the difference between high-stakes examination scores of students who received and students who did not receive instruction

from a school-wide reading literacy plan focusing on vocabulary and comprehension strategies, elements of literature, and expository text. The research questions were:

RQ1: What is the degree of difference between the pre-test and post-test scores of the cohort of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the cohort of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

RQ2: What is the degree of difference between the pre-test and post-test scores of the English Language Learner subgroup of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the English Language Learner subgroup of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

RQ3: What is the degree of difference between the pre-test and post-test scores of the Students with Disabilities subgroup of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the Student with Disabilities subgroup of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

The current body of research frames this study and provides a rationale for the study of increasing reading achievement with implementation of school-wide literacy plans. For this study, historical background of how accountability systems have evolved since inception of ESEA was explored. Most current reauthorization of NCLB and its effect on state standardized examinations was delineated. Current NCLB's ESEA Blueprint for Reform and flexibilities awarded to states were examined. An examination of relevant literature was addressed. Relevant information regarding dependent and

independent variables were assessed. Literature review included and addressed a description of literacy plans (independent variables) and student performance (dependent variable), and accountability through standardized testing.

Chapter 2 contains nine sections: Title searches, articles, research documents, and journals, historical overview, current findings, school culture, reading comprehension, measuring reading literacy, literacy plans, conclusion, and summary. The *historical overview* section includes a discussion on goals of Progressive education, NCLB and pedagogy, pedagogical practice related to reading, and reading as it evolved with NCLB. The *current findings* section includes an extensive discussion of literacy standards and accountability as well as literacy standards and accountability reform. The *school culture* section follows, with a discussion of the importance of collaborative school culture, which can drive a school's mission and vision. The *reading comprehension* section includes reading comprehension processes, reading strategies, and a brief summary of the reading portion of AIMS.

Following the reading comprehension section is *measuring reading literacy*, with an assessments briefing, and discussion on current and future assessments. The *literacy* plans section includes a discussion on national, state, district, and school-wide literacy plans. The *conclusion* section is a summary of the purpose of this study. The review of literature is an indication that formulation of school-wide literacy plans might be an essential blueprint for improving student achievement in Title I schools (Irvin, Meltzer, & Dukes, 2007). The *summary* section includes a compilation of key points discussed in the chapter.

### Title Searches, Articles, Research Documents, and Journals

Scholarly books and text books, peer-reviewed journal articles, government reports, newspaper articles, dissertations, research articles through University of Phoenix Library Internet search engines EBSCOhost, ProQuest, ProQuest Dissertations, and SAGE Research Online were used in this research. To identify relevant literature, key word searches included: ESEA, NCLB, AIMS, AZ LEARNS, AYP, Accountability Plan, Literacy Plans, Reading Literacy, Senate Bill 1040, PARCC, National Center and State Collaborative, and Local Education Agency (LEA). Table 3 includes a summary of literature searches.

Table 3
Summary of sources in Literature Review

Reference Type	Total	>5 years	<5 years	Percent
Books and Reports	59	14	46	22
Dissertations	6	2	4	2
Peer-reviewed journals	106	65	41	41
Websites	89	58	31	35
Total	260	139	121	100
Percent	100	53	47	100

#### **Historical Overview**

### **Historical Goals of Progressive Education**

Historically, performance measurement and educational accountability have been an important part of educational program administration (Ryan, 2008). Ryan stated the

role of educational performance measurement systems has shifted to management for results and accountability, particularly since NCLB. The launch of *Sputnik* in 1957 influenced federal involvement in curriculum, which resulted in passing the National Defense Education Act (NDEA) of 1957 (Steeves, Bernhardt, Burns, & Lombard, 2009). Steeves et al. further stated reactions to Russia's Sputnik launch unearthed fears that American education was in crisis. The launch also unearthed fears that American education was outperformed by education systems in other nations.

President Eisenhower and Congress, therefore, formed the NDEA to gain national security and increase national efforts in curricular areas of science, mathematics, and foreign language instruction. Steeves et al. (2009) asserted post-Sputnik era resulted in education policy which built national education priorities involving increased funding, federal oversight, and widespread school reform. Thus, the Elementary and Secondary Education Act (ESEA) of 1965, an essential part of President Lyndon Johnson's War on Poverty, impelled a significant investment in educational reforms (Preskill & Russ-Eft, 2005). Senator Kennedy delayed passage of ESEA because of concerns funds would not be used to help disadvantaged children. A condition for Senator Kennedy's ESEA passage was an evaluation clause to Local Education Agencies to include an accountability plan by respective state agencies (Preskill & Russ-Eft, 2005).

A school reform effort included the National Commission on Excellence in Education's report (1983), A Nation at Risk: The Imperative for Educational Reform, which noted America's schools were in crisis, and was the beginning of the standards movement (Hunt, 2008; McIntush, 2000). McIntush posited A Nation at Risk educated the public on problems facing America's schools and legitimized state and local efforts to

reform education systems. President George H. W. Bush introduced Goals 2000: Educate America Act of 1994, with standards movement targeting improvement of student performance in specific subject areas (Hunt, 2008). Elements of the standards movement, student performance, and accountability gained renewed vigor with introduction of NCLB (Hunt, 2008).

ESEA has had successive reauthorizations, including the most recent, No Child Left Behind Act (NCLB) of 2001 (Linn, 2005). NCLB is the current version of federal law ESEA, had not been reauthorized since 2002, and was explicitly framed by Congress to promote use of findings from scientifically based research in schools with problematic reading performance (Gersten & Hitchcock, 2009). NCLB is considered the greatest reform of elementary and secondary education since 1965, and has refocused federal goals of closing academic achievement gaps between disadvantaged and minority students and their counterparts (Preskill & Russ-Eft, 2005). However, since 2002, 37% of schools in the United States have not met targets mandated by NCLB. The U.S. Department of Education estimated over 80% of schools in America would not meet NCLB target mandates in 2011 (The White House, 2011c). Possible contributors to American schools not meeting NCLB mandated targets might be attributed to mandates which narrow student achievement to reading, writing, and mathematics, and exclude acknowledgement of cultural and contextual factors in the classroom (Duffy, Giordano, Farrell, Paneque, & Crump, 2009).

Responding to failure of American schools not meeting NCLB mandated targets, the Obama Administration proposed ESEA Blueprint for Reform and by September 2011, released a ESEA flexibility package of the ESEA Blueprint for Reform (U.S.

Department of Education 2010b; U.S. Department of Education, 2011d). Reauthorization granted states greater flexibility while retaining assessment and accountability (Differences Between the NCLB Act and the ESEA Renewal, 2010). The White House (2011b) noted ESEA Blueprint for Reform contains reforms awaiting congressional reauthorization of ESEA.

The White House (2011b), however, noted ESEA waiver authority is granted to the U.S. Department of Education, which allowed state school officers from 45 states to develop a flexibility package to relieve states from provisions of ESEA/NCLB. Provisions granted to states were contingent upon efforts by states to create and implement a plan to close academic achievement gaps, advance rigorous accountability, and ensure students are prepared to graduate from a secondary institution college- and career-ready. ESEA Blueprint for Reform may be an opportunity to increase effective reform, and for analysts to view reform proposals critically on what has worked and what has not (Kress, Zechmann, & Schmitten, 2011; U.S. Department of Education, 2011d). Flexibility reform is meant to reshape federal role in education, promoting depth in literacy and academic achievement, with a focus on teacher effectiveness and support to school districts implementing and sustaining comprehensive reforms. The flexibility reform evaluates teacher effectiveness of student growth rather than student knowledge of subject matter proficiency, with foci on college- and career-ready standards based on national initiatives. Comprehensive reforms include student growth models and specific intervention options to meet achievement targets (Duncan, 2009; Differences Between the NCLB Act and the ESEA Renewal, 2010).

Federal legislation, starting with ESEA of 1965 and successive reauthorizations of the Act, which includes NCLB, provide components of school accountability, test taking, and accountability policies and legislation (Linn, 2005). Linn stated during the 1970s, state assessments included minimum competency requirements; during the 1980s statewide testing programs were introduced, and by the 1990s, shift occurred from low-level requirements to ambitious content standards intended to measure higher-level understanding and skills. By the inauguration of NCLB in 2001 and a billion-dollar budget for educational reform, schools were required to report on student performance according to standardized test scores and other research-based material. As a result, LEAs worked diligently with schools to implement instructional practices and assessments required by NCLB (Hines et al., 2007).

# NCLB and Pedagogy

Sputnik, NDEA, ESEA, and subsequent reform efforts have affected the structure of curriculum (Steeves et al., 2009). Current reform is NCLB, a legislative policy for education, Public Law 107-110, signed into law in 2002 by President George W. Bush. NCLB was designed with the purpose to provide American students opportunities to achieve academic success with proven educational methods, particularly in reading instruction (Department of Education, 2002). NCLB requires public schools to use research-based instructional strategies to increase and improve students' literacy achievement, with the notion that accountability can improve focus of student achievement in public schools (Dee & Jacob, 2011). NCLB also ensures qualified teachers instruct America's students, emphasizing need for disadvantaged students to have opportunities to learn from highly qualified teachers (Phillips, 2010). By NCLB

measures, qualified teachers hold licenses to teach in their state, hold bachelor's degrees, and demonstrate subject-matter competency (Karelitz, Fields, Levy, Martinez-Gudapakkam, & Jablonski, 2011).

NCLB mandates of instructional changes might not have been motivated by state standards, but by accountability that accompanies standards movement through statemandated yearly testing (Babione, 2010). Babione stated adaptation to a standard, common curriculum might be beneficial to special needs students; however, views exist that standards inhibit teacher creativity. Babione posited NCLB contributes to an oversimplified assumption that state standards and high-stakes testing increase student motivation and improves teaching practice. Further, subjects not covered by high-stakes examinations deny certain student's exposure to those subjects (Heilig, Cole, & Aguilar, 2010). For example, Dee and Jacob (2010) stated educators' response to NCLB included reallocating instructional time from subjects such as social studies, to subjects tested on high-stakes examination, particularly reading.

NCLB requires states granted federal funds under ESEA develop ambitious academic standards, provide an accountability system based on those standards, and administer annual state assessments in reading and mathematics (Fowler, 2009). NCLB also requires states develop accountability systems applicable to *all* public schools in the state (Dee & Jacobs, 2010). NCLB's focus on the function of *audit*, or measuring student achievement of all students, including students enrolled in Title I schools, necessitated individualized or differentiated approaches to teaching and learning (McTighe & Brown, 2005; O'Brien & Roberson, 2012). McTighe and Brown (2005) stated a balance between educational standards and differentiated approaches to teaching, is necessary for schools

to promote student participation and engagement, understanding and comprehension, and longitudinal student achievement progress. McTighe and Brown contended standards-based education and differentiated instruction must function together if they are to complement differentiation of content, process, and product.

Differentiated curriculum dates to Cardinal Principles of Secondary Education, a report published by the National Education Association in 1918, whereby curriculum would be driven by needs of the society to be served (Fowler, 2009). To support literacy targeting Title I schools with a type of differentiated curriculum, and complying with NCLB mandates, the Arizona Department of Education (2011c) noted the Academic and Instructional Support unit established academies to assist teachers and administrators with methods and techniques on research-based best practices including research regarding underperforming schools and AIMS scores. The Academic and Instructional Support unit was dissolved in 2010 because of state budget cuts, and replaced with Arizona Academic Standards, a unit that provided support and assistance to educational leadership on academic state standards development and implementation. The Arizona Department of Education further noted the Arizona Academic Standards unit includes a K-12 Literacy subprogram, which ensures implementation of Arizona Academic Standards to include funding to improve teacher pedagogical content knowledge in literacy. Literacy support also includes School Accountability and Improvement program, the focus of which is to improve student achievement, and of which Arizona Leaders in Education for the Advancement and Development of Student and School Success (AZ LEADS) is a component. AZ LEADS is an initiative for school

improvement and a component of AZ LEARNS, a statewide plan for school improvement and student academic success.

Epstein and Sheldon (2006) asserted numerous challenges must be addressed to involve families in their children's literacy education, which includes school improvement and student academic success. One way to address a challenge is to allow parents access to their child's education. The Arizona Department of Education (2000) noted Student Accountability Access System (SAIS) was developed as an interactive achievement data system for students' records accessibility to parents. A function of SAIS provides parents with essential information about budgets, expenditures, and achievement information, assisting in choices for their child's education. The effort of AZ LEARNS might be defined as building student, parent, and school capacity, which maximizes chances of students' literacy success (O'Brien & Roberson, 2012). Aligning with NCLB's past, present, and future legislation, Arizona's vision for education focuses on improving student learning by ensuring *all* students have the opportunity to benefit from effective instruction yearly and in every grade, course, and school (Office of Governor Janice K. Brewer, 2012).

Encouraging reading literacy, Arizona established a school accountability measure with a statewide reading initiative supporting AZ LEARNS, the state's testing and accountability program (Wright & Choi, 2006). After the National Reading Panel's report in 2000, Teaching Children to Read: An Evidence-based Assessment of the Scientific Research Literature on Reading and its Implications for Reading Instruction, Arizona launched its first statewide reading initiative in 2001: Arizona: Readiness, Early Diagnosis and Intervention, Accountability, Development of Expert Teachers, and

Support (AZ READS), with a goal that by third grade, students learn to read proficiently. An important adjunct to AZ READS was the NCLB Act of 2001, which required schools to establish performance baselines and show adequate yearly progress for 10 consecutive years, with a goal that 100% of students achieve basic proficiency in reading (Arizona Department of Education, 2011f; Wolf, 2002, as cited by Sorgi, 2006). Reading proficiency prepares students for success in school as well as in careers. The National Reading Panel (2000) noted reading is critically important in obtaining an education.

To promote literacy, NCLB included enforcement mechanisms for schools and school districts not making AYP toward the goal that 100% of American students be proficient in mathematics and reading by 2014 (Fowler, 2009). Schools not making AYP face increasingly stringent sanctions (Murnane & Papay, 2010). Fisher, Frey, and Lapp (2009) stated a school failing to meet AYP for two consecutive years is labeled as *needing improvement*, provided support, and must allow students to participate in public school choice plan. To improve student literacy, NCLB is the first federal law allowing public school choice or supplemental services, such as no-cost tutoring, to eligible students enrolled in Title I schools failing to meet AYP for two consecutive years (Zhang & Cowen, 2009). However, Zhang and Cowen stated success of school choice by NCLB legislation might have more to do with reducing segregation and alleviating educational poverty factors than focusing on a school system. The authors stated assisting disadvantaged students might require improving academic quality of low-performing schools by recruiting and retaining quality teachers, improving school facilities, and providing quality educational resources.

Students in Title I schools failing to make AYP may not be aware of supplementary educational services, including instruction in form of tutoring. Murnane and Papay (2010) identified and recorded in a 2006-07 survey, 40% of eligible families had not received information about Title I supplementary services. Only 15% of eligible families who received information about supplementary services used them. Evidence on supplementary educational services is mixed. Murnane and Papay stated data from several public schools noted supplementary educational services did not increase students' academic achievement gain in reading or mathematics. However, one large school district reported use of supplementary educational material increased achievement gains in mathematics but not in reading.

Supplementary educational services in another finding reflected positive effects on student achievement gains in seven large urban school districts (U.S. Department of Education, as cited in Murnane & Papay, 2010). Reasons stated regarding supplementary services and school choice might be why ESEA Blueprint for Reform of 2010 removed school choice option and supplementary educational support which existed for failing schools under NCLB (Kress et al., 2011). However, an essential principle remains: bare literacy is not enough. Schools must supply the classroom and classroom teachers with relevant materials to enrich curriculum (Macandrew, 1959). Further, sustained professional development regarding situations of discrimination and poverty might assist teachers in understanding poverty and community culture, which could improve literacy (Gerstl-Pepin & Woodside-Jiron, 2005).

Relevant curriculum material, sustained professional development, and pedagogies helpful in increasing student achievement might assist schools make AYP

and show student academic growth. The National Reading Panel (2000) noted instructing students to use specific literacy strategies could improve reading comprehension, especially when students struggle with reading. Sanctions imposed on schools not making AYP yield varied results on student achievement and pedagogies. For example, toughest corrective action of restructuring a school requires existing faculty and administration to reapply for their positions or be reassigned to another educational institution (Murmane & Papay, 2010). Murnane and Papay posited accountability pressures might enable leaders to implement a school reform plan with their chosen faculty and staff leading to significant improvements in students' academic achievement; conversely, restructuring might require more scrutiny but not necessarily better leadership or instructional strategies, thus student achievement might be adversely affected.

Some framework included in NCLB reflects Dewey's philosophy of education. Murphy (2006) stated idea of growth, or reconstruction of experience, was central to Dewey's educational theory. Further, Murphy stated Dewey, credited with promoting progressive education, advocated society-centered education in which teachers are crucial in the learning process.

Historical pedagogical practice related to reading. Reading failure has long-term consequences for students' development of self-confidence, motivation, and self-esteem, all of which affect learning and success later in school (National Reading Panel, 2000). Further, low socio-economic status (SES) is believed to be a factor in differences in early and ongoing opportunities to participate in and benefit from literacy-building activities, including learning to read (Roberts, Mohammed, & Vaughn, 2010). SES is

also a predictor of vocabulary development (Lawrence, 2012). Reading achievement begins early in a student's academic life and teachers are the primary educational professionals able to observe and report student reading performance (Feinberg & Shapiro, 2009). To assist students' achievement in reading, teachers must use information, knowledge, and professional judgment to make appropriate instructional decisions about their students reading skills (Halladay, 2012).

Improvement in students' reading achievement and increased accountability for students' reading achievement requires researchers and educators to identify useful assessment tools and procedures (Paris & Hoffman, 2004; Peterson & Taylor, 2012). Historical publications on instruction and pedagogy reflect classroom experiences contribute positively to student achievement through teachers' use of effective instructional strategies, and efforts to advance K-12 education continue as policymakers and scholars search for methods to improve classroom instruction (Phillips, 2010). Dewey (1938) stated educational goals are accomplished when learning is student-focused, and classroom experiences engage students. Educational goals include reading literacy.

Phillips (2010) posited research consistently has described guardianship, parental education, non-dominant home language, and low income as factors contributing to disadvantaged students as well as reduced student achievement. However, teachers have a significant influence on students' motivation, academics, and outcomes, regardless of external factors contributing to barriers to motivation and student achievement (Negru & Damian, 2010). A relationship may exist between reading achievement and teachers' use of reading strategies, teachers' methods of instruction, and curricular elements of

effective reading programs. For example, the National Reading Panel (NRP) determined effectiveness of several instructional strategies to teaching students to read, all of which included curricular components of an effective reading program (Taylor, Pearson, Peterson, & Rodriguez, 2003).

Components of NRP's research of effective reading programs have been implemented nationwide to assist teachers in increasing student achievement.

Knowledge about effective reading strategies and effective teachers are connected, and teachers who engage in modeling and explaining strategies to decode words and understand texts are most effective in influencing student achievement (Taylor et al., 2003). Student achievement was notable with a balanced literacy program in which teachers used active participation strategies to engage and teach reading skills, modeled learning, taught scaffolding methods, provided feedback as guidance, and encouraged independent learning (Pressley et al., 2001, as cited in Taylor et al., 2003).

Reading and NCLB. As a result of the National Reading Panel Report in 2000, NCLB Act of 2001 includes Reading First, the academic foundation of NCLB. The National Reading Panel (NRP) complied with a Congressional mandate requesting assistance in identifying key skills and methods necessary, relevant, and central to reading achievement (National Institute of Health and Human Development, 2000). Reading First findings are results of years of research compiled by NRP, which identified components essential to a beginning reader: phonemic awareness, phonics, vocabulary, fluency, and comprehension (National Institute of Health and Human Development, 2000). Reading research conducted by NRP was based on literature review of experimental research designs, as opposed to designs such as ethnographic and

qualitative. Based on literature review, NRP proposed policies and developed recommendations which became the mandated Reading First guidelines (Hines et al., 2007). Congress used NRP's findings when writing NCLB (Allington, 2006, as cited by Furrow, 2008).

Reading First is the reading education component of NCLB and was the largest early reading initiative in the United States, which facilitated opportunities to provide reading instruction to students in high-poverty schools (Bell, 2003; Hines et al., 2007). A goal of Reading First is school districts create instructional programs in which students are systematically and explicitly taught reading skills (Bell, 2003). Reading First funds assists disadvantaged students in grades K-3 (Furrow, 2008). NCLB's Title I and Reading First funds assist groups of students, such as students from low-income backgrounds, English language learners, and students with disabilities. Reading First students of Title I schools receive almost 100 more Scientifically Based Reading Research (SBRR) instructional, assessment, and reading minutes per week than do students in non-Reading First Title I schools (Hines et al., 2007). Reading First includes programs such as Put Reading First, which assist to elevate students to grade level reading (Stevens, 2010).

#### **Current Findings**

### **Literacy Standards and Accountability**

Current NCLB educational reform stipulated exacting standards-based accountability measures and augmented terms of educational evaluation by focusing accountability measures on high-stakes standardized testing of students and teachers (Helm & St. Maurice, 2006). A NCLB goal is to close academic achievement gaps by

improving academic achievement among low-performing students in poverty schools (Forte, 2010). An explicit NCLB goal is all students, regardless of race, ethnicity, family background, or disabilities, reach proficiency in challenging state academic standards in reading and mathematics within 12 years from inception of NCLB (Giambo, 2010). Each state must ensure closing the achievement gap, improving teacher quality, achieving proficiency for students in mathematics and English language arts, and providing adequate yearly progress (AYP) for all students to show schools are improving in raising students' scores (Shirvani, 2009). Shirvani stated the underlying logic of NCLB is to define clearly through performance standards what students should learn and be able to do in content areas and at different levels in their K-12 academic career. Assessments must align to performance standards, and scores from assessments must be used to inform accountability decisions to improve student achievement through deliberate achievement plans for students and subgroups of students.

A measure of student achievement is through performance standards and accountability is AYP, a main feature of NCLB. AYP must meet five parameters set by NCLB; AYP must (a) set the same high academic standards for all students, (b) be statistically valid and reliable, (c) result in continuous and substantial achievement for all students, (d) measure academic progress primarily by academic assessments, and (e) include separate, academic achievement plans for various student groups identified by NCLB (Thompson, Meyers, & Oshima, 2011). To make AYP, schools must meet required levels of performance on assessment and other indicators for all designated student groups and subgroups, and must ensure 95% or more of students and each subgroup of students test in state's reading and mathematics assessments and meet state's

target for an additional academic indicator. An additional academic indicator for secondary institutions is graduation rates (Brimley, Verstegen, & Garfield, 2012; U.S. Department of Education, 2010b). A concern with the AYP formula is students who achieve academically and meet proficiency standards regardless of extenuating circumstances may be ignored; instruction might be focused on low-achieving students or students unlikely to meet proficiency standard even if given substantial amounts of instruction (Booher-Jennings, 2005).

Schimmel et al. (2008) stated NCLB requires states to create a plan including academic standards, assessments, and school accountability. The plan holds LEAs accountable for ensuring AYP through annual testing in mathematics and reading, with NCLB legislation requiring states to administer yearly high-stakes examinations. Schimmel et al. further stated high stakes-examinations are in mathematics and reading and required for students in 3<sup>rd</sup> through 8<sup>th</sup> grades, and again in high school. Unless a state applied for flexibility waivers, NCLB requires students be proficient by 2014 and requires every school make AYP toward meeting proficiency goal for students and subgroups of students within each school, ensuring no child is left behind (Murnane & Papay, 2010). Schimmel et al. (2008) stated after annual examinations, federal policy requires LEAs to issue annual report cards identifying schools in need of improvement and show how students score on statewide high-stakes examination in comparison to other students in the state.

Federal role in educational policy addresses inequities and achievement gaps (Gerstl-Pepin & Woodside-Jiron, 2005). Title I schools must provide instruction according to research-based strategies as well as evaluate student assessment procedures

according to additional federal and state mandates. However, Gerstl-Pepin and Woodside-Jiron noted mandates based on scientific research do not necessarily connect with the lived culture of some high-poverty schools. Kersten and Pardo (2007) stated teachers use literacy planning to meet instructional and academic needs of diverse students, such as ELLs, low-income, and disabled. A connection exists between literacy rates and AYP, and freedom from additional state mandates means meeting AYP through student literacy rates meeting state standards through annual measurable objectives (Fisher et al., 2009). Kress et al. (2011) stated substantial rises in student achievement rates increased in the 2000s due, in part, to implementation of accountability.

Complying with accountability measures in school year 2010-2011, Arizona students tested under AIMS, the state's high-stakes examination. To achieve AYP schools must have tested 95% of students in reading and mathematics, and 95% of students in each applicable subgroup (Arizona Department of Education, 2009). Further, AYP was met when schools met required levels of performance on assessments and other indicators for all students and student subgroups; students must have achieved literacy proficiency and academic growth (Brimley et al., 2012). According to a 2011 report on AYP for Arizona schools and LEAs, a large school district in Arizona did not make AYP. As a result, the school district was identified for Title I LEA Improvement because it did not meet AYP for two consecutive years in the same indicator and across all grade spans (Pedicone, 2011). The school district's report included a review of indicators and provided a *yes* or *no* response according to percent of students meeting or exceeding Arizona Academic Standards on the AIMS examination. Schools and school districts were required to meet attendance or graduation rates and percent tested, which were the

additional indicators; the school district's AYP determination was a result of not meeting test objectives in mathematics and reading. Determination was made for a school district's schools then AYP calculations were combined to determine the LEAs AYP.

Data included all students and subgroups of students. A school district does not make AYP when groups of 40 students or larger do not meet an indicator across all grade spans (Pedicone, 2011).

The National Center for Education Statistics (2011) supported basic reading proficiency is a foundation for later academic success. The National Institute for Literacy, Developing Early Literacy: Report of the National Early Literacy Panel is composed of several published studies on reading (National Institute for Literacy, 2010). The report confirmed studies within the literature establishing early reading skills could be precursors of later literacy achievement, including decoding, comprehension, and spelling achievement. Schools' instructional systems must educate students with high literacy expectations, with state standards meant to focus on content and skills essential for all students and on preparing as many students as possible (Wiles & Bondi, 2007).

Despite federal and state legislation with literacy achievement mandates, reading continues to be a challenge for many students (Martinez, Aricak, & Jewell, 2008).

Martinez et al. stated national efforts to eliminate reading deficits and prevent reading problems in America includes research on instructional methods and reading interventions. Despite reading interventions, pedagogies on best practices, and reading programs, only one-third of the nation's fourth- and eighth-graders read at or above the proficient achievement level (National Assessment of Educational Progress [NAEP], 2012). The trend continues through high school years.

The Nation's Report Card on Reading 2011, by the NAEP (2012), included profiles of students' scores. Scores reflected achievement levels, which are performance standards of what students should know and be able to do. Data include profiles of students scoring at lower and higher ends of the achievement level scale.

Percentages of fourth-graders scoring below the 25<sup>th</sup> percentile included 33% White, 25% Black, 35% Hispanic, and 3% Asian, of which 74% were eligible for free/reduced-price school lunch, and 24% were English language learners. Percentages of fourth-graders scoring above the 75<sup>th</sup> percentile included 71% White, 7% Black, 11% Hispanic, and 8% Asian, of which 23% were eligible for free/reduced-price school lunch, and 2% were English language learners. Percentages of eighth-graders scoring below the 25<sup>th</sup> percentile included 36% White, 26% Black, 32% Hispanic, and 3% Asian, of which 67% were eligible for free/reduced-price school lunch, and 32% had at least one parent who was graduated from a post secondary educational institution. Percentages of eighth-graders scoring above the 75<sup>th</sup> percentile included 72% White, 6% Black, 11% Hispanic, and 8% Asian, of which 21% were eligible for free/reduced-price school lunch, and 71% had at least one parent who graduated from a post-secondary educational institution (National Assessment of Educational Progress, 2012).

The highlights of the 2011 EdFacts State Trends Profiles for the Fifty States and the District of Columbia, published by the U.S. Department of Education (n.d.b), noted as of 2011, Arizona had 622 school districts and 2,090 public schools. Approximately 71.1% of Arizona's schools made AYP, and 298 Title I schools were identified for improvement, corrective action, or restructuring (U.S. Department of Education, n.d.b). According to statistics reported by the National Assessment of Educational Progress

(NAEP), the percentage was below the national average in reading for 4<sup>th</sup> and 8<sup>th</sup> grade students in Arizona "who performed at or above the Proficient level" (as cited in U.S. Department of Education, n.d.b, p. 3). "In reading, 25% and 27% of students in the 4<sup>th</sup> and 8<sup>th</sup> grades, respectively, performed at or above Proficient compared to 32% and 30% of students nationally" (NAEP, 2009, as cited in U.S. Department of Education, n.d.b, p. 3).

According to statistics reported by the Office of Elementary and Secondary Education (OESE, 2010), Arizona met six of six annual measurable objectives in reading on the State Assessment Performance measure for "4<sup>th</sup> grade, 8<sup>th</sup> grade, and high school" (as cited in U.S. Department of Education, n.d.b, p. 3). "In reading, approximately 72%, 74%, and 77% of students are performing at or above Proficient level in 4<sup>th</sup> grade, 8<sup>th</sup> grade, and high school, respectively. Hispanic students represent 41% of student enrollment and perform lower than the state average for 4<sup>th</sup> and 8<sup>th</sup> grade reading" (ED*Facts*/CSPR, SY 2009-10; NAEP, 2009, as cited in U.S. Department of Education, n.d.b, p. 3).

According to statistics reported by ED*Facts*, "approximately 47% of all students in Arizona are economically disadvantaged, 8% are limited English proficient, and 12% are children with disabilities" (ED*Facts*, SY 2009-2010, as cited in U.S. Department of Education, n.d.b, p. 3). "On the NAEP, they perform lower than the state average for all students for 4<sup>th</sup> and 8<sup>th</sup> grade reading (NAEP, 2009, as cited in U.S. Department of Education, n.d.b, p. 3). "The average freshman graduation rate is 72.5%, which is lower than the national average of 75.5% (NCES, SY 2008-2009, as cited in U.S. Department of Education, n.d.b, p. 3).

According to statistics reported by Common Core Data/Integrated Postsecondary Education Data System on Arizona student data (CCD/IPEDS, 2008, as cited in U.S. Department of Education, n.d.b. p. 3), "51.4% of students enroll in college within one year after high school graduation, which is much lower than the national average of 63.8%" (CCD/IPEDS, 2008, as cited in U.S. Department of Education, n.d.b, p. 3). According to statistics reported by the College Board (2008), "8.8% of high school seniors scored a 3 or higher on at least one Advanced Placement examination in their high school career, lower than the national average of 16.9% by 8.1 percentage points (College Board, 2010, as cited in U.S. Department of Education, n.d.b, p. 3). According to Common Core Data (2009), "per pupil expenditure data is \$7,929, which is \$2,662 less than the national average of \$10,591" (CCD, FY 2009, as cited in U.S. Department of Education, n.d.b, p. 3). The Nation's Report Card on Reading 2011 results reflect Arizona students perform below the national average through 8<sup>th</sup> grade, with low academic performance rates continuing through high school with students in low performing schools.

Literacy standards and accountability reform. A precursor to ESEA Blueprint for Reform, a standards and accountability reform, was NCLB of 2001. Implementation of NCLB accountability provisions has been at the discretion of individual states, whereby states have created academic standards, selected assessments, and specified minimum scores for student proficiency (Murnane, & Papay, 2010). Murnane and Papay asserted meeting AYP became difficult for schools with a high enrollment of disadvantaged learners, especially with the variation, or fragmentation, across states in assessments and standards. Haycock (2010) stated students' aspirations to attend college

may be high, but growth in college enrollment among low income and minority students is low, for whom remediation rates in college are high (Haycock, 2010). Such fragmentation forced implementation of different programs in different, incoherent directions. Connelly, He, and Phillion (2008) stated policy entrepreneurs advocated fragmentation be replaced by structures advocating a common purpose across states and federal policy guiding educational institutions. Connelly et al. noted the federal government should provide guidance for ambitious and coherent content frameworks, encouraging states to develop statewide content standards based on national guidance.

Promoting literacy education remains a priority; yet, fragmentation of standards and accountability across states is prevalent, as evidenced in the wake of the RTTT program. In an effort to provide national guidance supporting literacy, in March 2010 the Obama administration proposed ESEA Blueprint for Reform, which included a focus on improving literacy in America's lowest-performing schools (Kress et al., 2011). The U.S. Department of Education (2010c) noted ESEA funds are notable; the Obama Administration invested \$350 million to support states in creation of student assessment systems measuring 21st century skills. Additional education reforms supported by the investment are in areas of systems keeping track of student information, such as student growth, and providing teachers with timely information to help improve instructional practices, procedures to hire and retain knowledgeable teachers and administrators, and methods to restructure low-achieving schools into high-achieving schools. Financial support connected to reform includes funds provided to Race to the Top Assessment Program as a provision of ARRA (Leighton, 2011; U.S. Department of Education, 2010c).

Race to the Top Assessment Program allotted funds of approximately \$4.35 billion to RTTT for project grants for states to invest in school reforms. An additional \$5 billion from the Administration was slated for targeted efforts to reform schools, for which educational assessment specialists were expected to design and facilitate adoption of high quality formative and summative assessments reflecting updated measurement theory and applications (Duncan, 2009; Leighton, 2011). Creating common standards and assessments might be an effort to reform schools' literacy rates, possibly alleviating the problem Murnane and Papay (2010) addressed regarding schools with high enrollments of disadvantaged students, thus schools not making AYP because of the variation, or fragmentation, across states in assessments and standards.

Federal education policy demanded states reform schools' literacy rates in an effort to improve student achievement, especially among low-income students (Haycock, 2010). Educational reforms included assessment and accountability reforms and were supported by private and public sectors. For example, Haycock stated the effort to create common standards and assessments was because of contributions of leaders such as Achieve Corporation, which provided support for states' efforts to close gaps between high school and college. The Council of Chief States Schools Officers and the National Governors Association assisted in developing consensus on common standards among state chiefs. Finally, the Bill and Melinda Gates Foundation invested generously in assisting the three organizations in the common standards effort.

The common standards effort included a basic overview of the literacy core to include reading, writing, listening, and speaking, which is what college-ready students are able to. College-ready students must be able to read complex texts, convey complex

information, listen attentively and critically, work productively with people from diverse backgrounds, and use technology prudently and with ease when reading, writing, speaking, and listening (Haycock, 2010). Movement toward high school common standards and assessments might be an indication that common standards will be observed in American schools and common assessments will become states' high-stakes examinations. Haycock stated common standards are fewer and clearer, with intent of *a mile deep and an inch wide* curriculum, and teachers will need tools to understand common standards deeply themselves, with robust curricula and high-quality lessons, which are tools teachers in higher performing countries have had for years.

Kress et al. (2011) stated among several noteworthy elements of ESEA Blueprint for Reform was \$14 billion of Title I funding as the the condition requiring states to adopt college- and career-ready common standards. Common standards will change assessment measures to account for growth rather than continuing to use existing measures of performance levels. Kress et al. further stated ESEA Blueprint for Reform removed school choice option and supplementary educational support existing for failing schools under NCLB, weakening consequential accountability. Additionally, ESEA Blueprint for Reform applied accountability sanctions to only lowest-performing, bottom five percent of schools, weakening consequential accountability for 85% of schools.

To improve student literacy at the highest level, consequential accountability must apply to 100% of schools. America has been a world leader in several areas, and remaining a world leader in education among developed nations is a concern. A significant challenge addressed by the Obama administration is America's ranking among developed nations. Morrell (2010) stated in world rankings, United States of America

was 11 out of 32 in college completion rates for students ages 25-34. Thus, ESEA Blueprint for Reform's aim is to lead again by 2020 by ensuring students are prepared as literate, competent professionals, and engaged citizens (Morrell, 2010). According to Morrell, to reach the goal entails implementation of ESEA Blueprint for Reform's significant reforms and priorities, which include preparing students for college and careers, excellent teachers and leadership in schools, equal opportunity for students and subgroups of students, high student achievement expectations, and continuous improvement and innovation.

To promote college- and career-ready students, states must upgrade current standards, work with states to adopt common core standards, or standards clearly benefitting students' academic success, and change assessment measures to account for growth rather than continuing using primarily existing measures of performance levels (Kress et al., 2011). Kress et al. stated under ESEA Blueprint for Reform, federal funding is granted to states for developing standards in collaboration with postsecondary educational institutions to ensure student academic success, and states working with other states to create common standards. Haycock (2010) asserted common standards creation and implementation is about clarifying what successful college students must know and be able to do, beginning before they enter college.

Addressing ESEA Blueprint for Reform's goal of great educational leadership in every school might best be described as teachers and leaders who believe in high academic success, are well trained, and understand the relationship between theory and practice (Morrell, 2010). The recommendation for promoting greater teacher and leader effectiveness might represent an important breakthrough in acknowledging importance of

effective teaching and leadership to student achievement (Kress et al., 2010). New learning refers to availability of prerequisite capabilities and includes lower skills and essential rules, concepts, and part-skills in procedures (Gagné, 1968a, as cited in Gredler 2009). ESEA Blueprint for Reform's goal of great educational leadership might include equity in students' academic success through schools' strong accountability system. Further, equity in students' success might be credited to a system whereby standards implemented focus on college and career readiness, and areas of importance extend beyond content of reading, mathematics, and science, to include content in areas such as career and technical education, social studies, and fine arts. Therefore, ESEA Blueprint for Reform's goal of great educational leadership, which includes a strong accountability system and college- and career-ready standards, might ensure pathways of academic excellence and access for students and subgroups of students (Morrell, 2010).

ESEA Blueprint for Reform's goal on raising the bar and rewarding excellence included RTTT. RTTT was launched as a federal grant program in which states voluntarily compete for federal funding and demonstrate improvements in enhancing standards and assessments, building effective use of data systems, retaining and increasing teacher effectiveness, and transforming low-performing schools (Jahng, 2011). Haycock (2010) noted Education Secretary Arne Duncan was instrumental in allocating stimulus dollars to RTTT competition of common-standards effort. RTTT provides incentives for state-level systematic reforms and expands the program to school districts implementing comprehensive reforms. States not adopting college-ready standards and assessments do not receive RTTT funds. RTTT policy is meant to decrease achievement

gaps between minority and White students in academic subjects [reading and mathematics] (Jahng, 2011).

Finally, ESEA Blueprint for Reform's final goal is promoting innovation and continuous improvement. The goal is to fund student successes by investing in new models to include student safety, student health support systems, and strategic plans to include and engage family & community members in education (U.S. Department of Education, 2010b). Leighton (2011) presented an evaluation of ESEA Blueprint for Reform and RTTT's priorities. Leighton stated most priorities are premised on deep, conceptual forms of learning elevating strong academic outcomes. Such outcomes are the types sustaining innovation and creativity, allowing American students to survive or gain the competitive edge, within global competition. Educational communities that can address challenges of ESEA Blueprint for Reform and RTTT's priorities might also be able to address comprehensive plans to educational reform including higher levels of performance in all subjects, as well as improving early childhood education learning outcomes to assist students in lifelong higher academic achievement.

In August 2011, Obama administration's proposal to reform NCLB was still in Congress. ESEA Blueprint for Reform represents one of the most important proposals for altering federal education law and policy (Kress et al., 2011). The U.S. Department of Education (2011c) noted without a bill to reform NCLB, the Obama administration provides a high-bar process for states opting for education reform to seek relief from major provisions of the law. States not seeking flexibility on measuring annual student growth continued to comply with original NCLB's requirements until such time when Congress might enact a law enabling change to all 50 states. One key provision of NCLB

for which states sought relief was provision of students achieving 100% proficiency in reading/language arts and mathematics by school year 2013-2014. Shriberg and Kruger (2007) stated relief of the 2013-2014 100% proficiency provision might be connected to the conclusion of reliance on NCLB's high-stakes examination scores might not be a valid gauge of student proficiency, thus not a valid gauge of school AYP determinations. Further, Shirvani (2009) and Shriberg and Kruger asserted NCLB has not been able to significantly improve student achievement of minority groups.

Boyce (2012) asserted some provisions of NCLB need revision, including standards and accountability measures. Standards and accountability reforms might be associated with AYP percentages of students not achieving at proficiency, and those percentages not substantially increasing each year; therefore, affecting schools' AYP determinations (Mele-McCarthy, 2007). American schools improve quality of education when students' academic potential is achieved (Pepper, 2010). Tavakolian and Howell (2012) stated NCLB expectations require schools to increase performance for all students on an annual basis. However, the U.S. Department of Education estimated in 2011, over 80% of schools did not meet NCLB target mandates which adversely affected schools' AYP determination (Duncan, 2009).

Addressing the high percentage of schools not meeting NCLB target mandates, in September 2011 the White House announced states' local education agencies could apply for relief of certain ESEA/NCLB provisions in exchange for a comprehensive plan to include closing the achievement gap, a rigorous accountability system, and challenging standards ensuring students graduate college- and career-ready. Relief available to states were flexibility packages developed by chief state school officers from 45 states, a

flexibility allowed only under waiver authority explicitly granted to the U.S. Department of Education under ESEA (The White House, 2011b). Such relief from provisions of ESEA/NCLB was necessary because if American students are to gain literacy, academic standards must be raised, teacher professional development must improve, rigorous student and teacher evaluations must be implemented, testing systems must be modernized, and parents must be more engaged in their children's education (Kanter, 2011). Provisions of ESEA/NCLB might be opportunities to achieve higher literacy rates and realize aspirational goals of more students graduating from secondary school, more students enrolling in post-secondary school, and more students graduating from college. The Obama Administration's ideal is of a superlative education system, yet data reflect students from schools in the United States are not well prepared to compete in the global economy (Kanter, 2011).

Additional comprehensive reforms outlined in ESEA Blueprint for Reform, therefore, await Congressional reauthorization, to include the major focus of NCLB of improving achievement for *all* students, particularly the traditionally disadvantaged or overlooked (Kress et al., 2011; U.S. Department of Education, 2011d). Legislative setbacks regarding ESEA Blueprint for Reform were advantageous to states and LEAs seeking flexibility from provisions of NCLB. States applied for provision-specific waivers of the law and by February 2012, Arizona was among 37 states to submit requests formally to the U.S. Department of Education for waivers from key provisions of NCLB (Doan, 2008; U.S. Department of Education, 2012a).

Although many states were granted provision-specific waivers, literacy standards and accountability reform continue evolving. The U.S. Department of Education (2011b)

noted Growth Model Pilot Project (GMPP) allowed states to experiment with adjustments to NCLB regarding AYP. In 2006, GMPP allowed students designated to be proficient and be included in data as proficient for purposes of determining AYP. The allowance meant some schools would avoid designation as a failing school. Under GMPP, nine states incorporated growth models in school AYP determinations of NCLB: Alaska, Arizona, Arkansas, Delaware, Florida, Iowa, North Carolina, Ohio, and Tennessee.

In 2008, GMPP became regulation, and eligible states met particular core standards by using the growth model (Braun, 2009). Despite GMPP and other attempts at educational institutions and agencies making AYP and meeting NCLB target mandates, the U.S. Department of Education estimated by 2011, over 80% of schools did not meet NCLB target mandates (Duncan, 2009). Congress and the Obama administration are crafting legislation to reauthorize ESEA. The indications are new legislation distinct from NCLB, including growth and value-added models as part of the equation to school evaluation (Braun, 2009). Thus, the new era of NCLB includes ESEA Flexibility with accountability measures meant to enhance academic achievement and develop high quality instruction for students.

As with any change process, opportunities available with reauthorization of ESEA might become part of moving forward to meet current expectations (Pepper, 2010).

Current reform and expectations for reading achievement include partnerships among municipal leaders from various sectors, whose focus is on executing strategies having significant potential to drive improvement in grade-level reading (Smith, 2011). Driving positive reading achievement can be linked to transformational leadership in a school, with principals who employ and allow a repertoire of creative and innovative approaches

to curriculum and instruction (Nash, 2010). Nash stated teachers with high efficacy and preparedness for success in multicultural classrooms are successful in sustainable student achievement.

### **School Culture**

School culture is a system of a shared mission and vision, which can be a uniting force, giving a school its unique identity (Hoy, 1997). School culture affects goals, values, and beliefs. Gümüşeli and Eryilmaz (2011) posited development of organizational, or school culture, in educational systems cannot be ignored. Gümüşeli and Eryilmaz stated a determinant of strong influences on school culture is identified by shared values and norms. Further, organizational culture including a climate of respect in schools has a positive influence on behavior patterns of teachers, administrators, and students. Conversely, inefficient organizational culture of schools can damage functioning of schools.

A collaborative school culture can drive a school's mission and vision, which includes such systems as test scores, student achievement, and best practices in instruction. Gümüşeli and Eryilmaz's (2011) study found a collaborative school culture includes sharing organizational values and goal implementation, whereas an unhealthy school culture, focus is short-term, staff moral is low, and goals are inconsistent. Gümüşeli and Eryilmaz postulated a positive school culture includes professional development for teachers and principals, and school administrators who cultivate mutual respect and collective decision-making.

An understanding of the school culture assists teachers, teacher-leaders, and school leadership with implementation and planning of curriculum, and developing an

awareness of school culture may be important to implementation of a school-wide reading literacy plans. When teachers, teacher-leaders, and school leadership foster a collaborative, interdisciplinary reading literacy plan, students' motivation to achieve in school might improve. Daniels and Steres (2011) stated developing a school-wide reading culture can lead to increased student engagement in reading. Daniels and Steres contended decades of research cite significant positive outcomes when students read daily, and devoting time to reading increases student engagement. Additionally, rigorous and relevant curriculum encouraging student-teacher relationships as part of school culture might influence positively student achievement. Marzano, Pickering, and Pollock (2001) stated an individual teacher can have powerful effects on students and most effective teachers can influence student achievement by up to 53 percentage points in one year.

## **Reading Comprehension**

A method of engaging students to meet literacy standards may be with school-wide literacy plans focusing on reading comprehension. The National Reading Panel (2000) stated reading comprehension engages the reader and comprehension is critically important to reading skill development in students. Dewey (1938) described comprehension as a thinking process for seeking meaning where there is perplexity, a lack of understanding, or absence of sense. Process of reading comprehension includes thought, evaluation, judgment, imagination, and problem-solving strategies (Hussein, 2012). The reader response theory broadens student reading comprehension. Vacca and Vacca (2008) stated theorists, such as Louise Rosenblatt, as early as 1938 argued literary interpretation is composed of both thought, or efferent stance, and feeling, or aesthetic

response, and reading instructional strategies encouraging reading comprehension is a pedagogical method using both efferent and aesthetic student responses.

Stevens (2006) stated research indicates a significant decline in indicators of students' learning and motivation; however, pedagogically, teachers use reading strategies to assist students with reading achievement in a multitude of ways. Reading strategies should be a means to critical literacy, which refers to capacity a reader has to make reading more meaningful and relevant by questioning the text (Park, 2012). Stevens' study supported using research-based instructional procedures, good literature as a basis for instruction, cooperative learning/teaching strategies, and integration of reading and writing to increase positive results significantly in student achievement in at least vocabulary and comprehension. Benefits of cooperative learning on academic content include motivation in social and cognitive areas of student growth. Stevens further posited teaching and applying comprehension strategies in content area reading helps students' ability to transfer and use the strategies in new and different tasks. As students' reading comprehension levels increase, students' academic success also increases (Sallabas, 2008).

According to Chapter 4 of Teacher Preparation and Comprehension Strategies
Instruction, comprehension strategies are effective in improving students' reading
performance and sometimes, higher scores in standardized tests of reading (as cited in
National Reading Panel, 2000). The National Reading Panel further noted
comprehension instruction can motivate students effectively and teaches students to use
comprehension strategies. The Arizona Department of Education's archived Reading
Standards of 2003 are articulated by grade, are replete with comprehension components,

and were used in the AIMS examination. The reading portion of AIMS for the 10<sup>th</sup> grade consisted of reading strands, which are comprised of concepts supporting the strand.

Strand One is the Reading Process. According to the Arizona Department of Education (2003), "The Reading Process consists of five critical components of reading, which are Phonemic Awareness, Phonics, Fluency, and Vocabulary and Comprehension" (p. 1). The Arizona Department of Education (2003) further delineated strands, and provided concepts of each strand. The six concepts of Strand One, Reading Process, are Print Concepts, Phonemic Awareness, Phonics, Vocabulary, Fluency, and Comprehension. Strand Two is Comprehending Literary Text. According to the Arizona Department of Education (2003), "Comprehending Literary Text identifies the comprehension strategies specific in the study of a variety of literature" (p. 2). Two concepts of Comprehending Literary Text are Elements of Literature and Historical and Cultural Aspects of Literature. Strand Three is Comprehending Informational Text. According to the Arizona Department of Education (2003), "Comprehending Informational Text delineates specific and unique skills required to understand the wide array of informational text experienced daily" (p. 3). Three concepts of Comprehending Informational Text are Expository Text, Functional Text, and Persuasive Text. Each concept is detailed with performance objectives (Arizona Department of Education, 2003).

## **Measuring Reading Literacy**

Definitions of literacy have evolved. Ahmed (2011) stated United Nations Educational, Scientific and Cultural Organization (UNESCO) defined literacy by providing three statements at different times, spanning five decades. According to

UNESCO's statements, a definition of literacy in 1958 was people were literate when they could read and write a statement on their lives. In 1978, the definition was people were literate when able to function by engaging within their community, and when they continued to read, write, and calculate for themselves and for development of their community. In 2005, UNESCO noted people were literate when they could use written materials in various contexts for identifying, understanding, interpreting, creating, computing, and literacy involved lifelong learning. Ahmed noted countries use different definitions to classify people as literate; a measure of literacy is by means of assessment, and in American schools, NCLB guides high-stakes literacy assessment methods and instruments as a means of measuring literacy.

AIMS is Arizona's high-stakes, standards-based examination measuring student literacy and proficiency of Arizona Academic Content Standards in mathematics, reading/language arts. Leaders of education professionals developed AIMS by setting literacy standards for the purpose of measuring student achievement (Arizona Department of Education, 2010b). AIMS measures student literacy, including reading achievement. Jorgensen (1999) stated AIMS examination addressed a national demand for more stringent graduation requirements and was a breakthrough in Arizona's educational reform. The examination was designed to provide evidence of student progress through the school system.

AIMS is administered for reading and mathematics from 3<sup>rd</sup> through 8<sup>th</sup> grades, and again in high school (Jorgensen, 1999). Jorgensen stated although the first high school AIMS test was administered in spring of 1999, the Arizona State Board of Education established the class of 2006 as the first graduating class required to pass the

competency test in three content areas of AIMS to earn a high school diploma. Arizona's assessment system requires students pass the AIMS examination. Students who do not pass the AIMS examination by Grade 12 do not earn a high school diploma and might be required to enroll in remedial courses (Amrein-Beardsley, 2009). ESEA Blueprint for Reform maintains NCLB's requirement of states using assessments as part of their accountability systems; therefore, high-stakes testing might remain a requirement of the American education system (Kress et al., 2011).

AIMS was updated by new assessments to include priority purposes. Planned assessment's priority purposes are to evaluate students' college- and career-ready knowledge, assess common core standards, measure range of student performance, provide data to inform and guide instruction, provide data for accountability purposes, and provide innovative approaches to teaching and learning throughout the assessment system (Partnership for Assessment of Readiness for College and Careers, 2012). The Arizona Department of Education (2010a) noted in 2010 Arizona State Board of Education adopted new standards for reading, writing, and mathematics to align with Common Core Standards. RTTT Assessment Program was authorized as part of ARRA of 2009, and in September 2010 the U.S. Department of Education awarded grants to two consortia of states: Partnership for Assessment of Readiness for College and Careers (PARCC), and Smarter Balance Assessment Consortium (Smarter Balanced). The AIMS examination replacement was referred to as *PARCC* assessment, scheduled for administration during school year 2014-15.

Awaiting vendor proposals, Arizona withdrew from PARRC as the state assessment vendor in May 2014; however, Arizona's College and Career Standards

remain the standards used to develop next generation assessments to measure student literacy (Arizona Department of Education, 2014a). The name of Arizona's assessment might well have remained AIMS had not the Legislature prescribed otherwise, and in 2014, Arizona's AIMS replacement became *Arizona's Measurement of Educational Readiness to inform Teaching*, or *AZMerit* (Arizona Department of Education, 2010a; Arizona Department of Education, 2014a; Gonzales, 2012).

Kress et al. (2011) asserted valid and reliable assessments aligning closely to rigorous content and performance standards could represent a major advance in testing and in reforming criticisms of current assessments. Data may reflect said assertion for the high school in this study: data results for 10<sup>th</sup> grade students AIMS scores in the 2013-2014 school year indicate the percentage of students meeting or exceeding standards in reading was 77%, rising from 68% in both school years 2011-2012 and 2012-2013 (Tucson Unified School District, n.d.d; Tucson Unified School District, 2014). The Common Core Standards initiative may have the potential to influence progress positively toward goals of improving literacy instruction and learning for all students (Wixson, 2012).

# **Literacy Plans**

A goal of NCLB Legislation is 95% of students read at a proficient level (Gamble, 2009). NCLB also requires underperforming schools to adopt reforms supported by scientifically based research, which could incite school leaders to develop and implement avenues to attain student academic improvement and success (Fleischman & Heppen, 2009). Marzano (2003) posited the number-one component of consistent student achievement is successful curriculum-instructional implementation. Among

approaches to meet mandates of NCLB and to attain student achievement are successful instructional implementations of literacy plans including reading components and strategies. For example, NCLB federal mandates and below satisfactory high-stakes examination scores prompted one of the largest school districts in Kansas to implement a literacy plan to improve secondary school reading and writing skills (Witte et al., 2010). Academic performance increased after implementation of the literacy plan, and although McReynolds (2006) stated curricula narrowed to meet federal benchmarks in math and reading after NCLB, some high-stakes examination scores associated with NCLB might reflect an increased use of literacy plans nationwide.

Academic performance might increase when a literacy plan is part of academic achievement meant to increase high-stakes examination scores and student academic growth. Dechant and Dechant (2010) stated according to systems theory, the more congruency among system components, the more effective the system. Creating a systems approach to successful literacy plans connects academic performance, high-stakes examinations, and academic growth. Dechant and Dechant (2010) contended if a system is to endure, it must adapt to changes and respond to feedback from external stakeholders.

Responding to external stakeholder feedback, Gamble (2009) stated NCLB high-stakes examination testing requirement facilitated a study on whether or not Memphis Literacy Academy's (MLA) focus on reading initiative affects students' reading proficiency and scores on a high-stakes standardized examination. Gamble's study determined MLA's focus on reading initiative improved student literacy. Analysis of reading scores showed significant increase in scores for students in the Reading First

program with the MLA reading initiative compared to scores for students in the Reading First program without the MLA reading initiative (Gamble, 2009).

Literacy plans to assist with underperforming students' achievement are numerous. An over-arching literacy plan aside from existing, individual-school literacy plans is Response to Intervention (RTI), included in a NCLB mandate. Artiles and Kozleski (2010) stated RTI exists in schools and districts throughout the United States as a strategy to enhance student learning. RTI is meant to improve student achievement, particularly for lowest-achieving students, which may include ethnic minority and linguistically diverse students. The RTI process is implemented in every U.S. kindergarten through 12<sup>th</sup> grade public school (Artiles & Kozleski, 2010; Cicek, 2012).

Artiles and Kozleski (2010) stated characteristics of RTI models include three or four levels in which interventions vary by level of intensity. Levels include evidence-based instruction in general education, and two or more levels, or 'tiers' of instruction progress in intensity and are based on student's response to instruction. Most RTI interventions focus on reading and math and continuous monitoring of student performance. Cicek (2012) stated RTI is the major intervention program before students are identified as eligible for services such as exceptional education services, English as a second Language services, Bilingual Education services, and services provided under Section 504, all of which are educational programs subject to direct or indirect extra funding. RTI and NCLB are multi-faceted with various objectives, one of which is use of instructional reading models.

Stevens (2010) reported NCLB and Individuals With Disabilities Education Act of 2004 (IDEA) mandated school leadership to use an instructional reading model with

RTI. The major objective of the mandate is school leadership accountability for improving student reading scores by implementing and monitoring use of scientifically research-based reading instruction. According to Howard, RTI is a multi-tiered problem-solving model that helps to prevent over-identification and misrepresentation of language minority subgroups as possessing a learning disability, especially when the disability relates to reading difficulties (as cited in Stevens, 2010). The RTI initiative has potential to influence progress positively toward goals of improving literacy instruction and learning for all students (Wixson, 2012).

National and state literacy plans. National Institute for Literacy (NIFL) is an agency in the Federal government authorized to strengthen literacy across students' lives (National Institute of Health and Human Development, 2000). NIFL designed and implemented a comprehensive system to provide to teachers and parents. The plan for the comprehensive system provides information on scientifically-based reading research to increase awareness of research-proven methods and strategies for teaching reading, preventing reading difficulties, and correcting reading problems (U.S. Department of Education, 2002). NIFL is authorized under NCLB, Public Law 107-110, Part B, Subpart 1, Section 1207, to identify and distribute information about educational institutions that have achieved effective reading programs conforming with requirements of Reading First, which supports early reading programs helping to prevent reading difficulties in students (Shaywitz & Shaywitz, 2002; U.S. Department of Education, 2009b). Reading First is a reading accountability measure of NCLB. NIFL provides assistance to educational institutions in literacy issues, such as information on relating literacy to assessment, research, and policies (Vacca et al., 2009).

United States of America (USA) abounds with literacy plans. Among prominent reading programs spurring numerous reading literacy plans is Reading First, a program for students from kindergarten through 3<sup>rd</sup> grade (K-3), and the academic cornerstone of NCLB. Concerns about older students reading below grade level led to authorization of Striving Readers Comprehensive Literacy (SRCL) programs. The U.S. Department of Education (2012b) noted the purpose of SRCL programs is to improve literacy skills for learners through Grade 12. SRCL "is authorized as part of the 2010 Consolidated Appropriations Act under the Title I demonstration authority, Part E, Section 1502 of the ESEA", which was established to raise literacy rates for students in Title I schools (U.S. Department of Education, 2012b, para. 1). Through the Act, Congress provided almost \$200 million in 2011 to state educational agencies (SEAs) to develop comprehensive literacy plans. States must establish or support State Literacy Teams with competency in developing literacy to benefit children and students from birth to Grade 12 (Cassidy, Valadez, Garrett, & Barrera, 2010; U.S. Department of Education, 2012b).

A condition under which an SEA is awarded a grant through SRCL is continuous improvement of a State Literacy Plan, to include support of a coherent approach to funding and implementing effective literacy instruction for disadvantaged students, including disabled and limited-English-proficient students, and regular students (U.S. Department of Education, 2011a). The 2011 SRCL discretionary grants were awarded to six states: Texas, Pennsylvania, Louisiana, Georgia, Nevada, and Montana. In 2010 most states received funding to create state literacy teams responsible for creating and implementing comprehensive literacy plans for children and students from birth to Grade 12 (U.S. Department of Education, 2011a). The program's reading achievement goals

include intervention during the school year to raise low-performing adolescent students' reading achievement, and raising student state assessment scores to proficiency or above proficiency levels (Cassidy et al., 2010).

National literacy initiatives align with and support state literacy plans. For example, the U.S. Department of Education (2012b) announced SRCL abstracts from six states meeting conditions of the national SRCL proposal guidelines and were awarded grants. A synopsis of proposals aligning and supporting national literacy initiatives with state literacy plans included SRCL awardees: Georgia, Louisiana, and Montana. The U.S. Department of Education noted Georgia proposed a SRCL project aligned with Georgia's State Literacy Plan concentrating support for impoverished schools. Louisiana's plan advanced, implemented, and built upon research-based practices and model SRCL-funded literacy plan reflecting the state's successful K-12 Pilot, Literacy Is For Everyone (LIFE) Promise.

Finally, Montana proposed to enhance the state literacy plan, Montana's Striving Reader's Project (MSRP), committing to improve literacy achievement, especially literacy enhancements to disadvantaged students, and provided support for sub-grantee LEAs. SRCL's summaries are examples of successful national literacy initiatives supporting state literacy plans. Literacy grants are another source of support to reading literacy, such as University of Arizona's grant award to Civic Engagement Teams, which is comprised of honor students whose mission was to mentor youth in after-school activities emphasizing knowledge related to reading, math, science, and computers, among other fields (Honor Society of Phi Kappa Phi, 2010).

**District- and school-wide literacy plans.** Success in district and school literacy plans might stem from successful state literacy plans. The U.S. Department of Education (2012b) SRCL proposal excerpts indicate SRCL programs strengthened states' literacy plans with literacy instruction support. For example, the U.S. Department of Education (2012b) noted Montana's Striving Readers Program awarded between 25 and 35 subgrants to LEAs and schools throughout Montana, benefiting more than 8,000 children and youth and 500 teachers. Nevada created and published the first literacy plan in 2011 and awarded between three to 12 sub-grants to LEAs ranging from \$1 million to \$9 million annually per sub-grant, for five years, providing services to over 400,000 Pre-K-12 children and students and 22,000 teachers. Pennsylvania's State Literacy Plan expects to provide services to 50,000 students and 5,000 to 6,000 teachers from 2011 through 2016. Texas formed Texas Striving Readers Comprehensive Literacy Initiative (TSRCLI), which assisted with implementation of the Texas Literacy Plan, for which goals included improving school readiness through 12<sup>th</sup> grade in literacy development for disadvantaged students, particularly students living in poverty.

A report that might have been part of the bridge between Reading First and SRCL is Reading Next (Biancarosa & Snow, 2006). This report served to alert educators of complexities of adolescent literacy instruction. Biancarosa and Snow stated if reading is neglected in later grades, many excellent K-3 readers will struggle or fail in academic tasks from 4<sup>th</sup> to 12<sup>th</sup> grades. The report's authors contended American students need strong literacy skills to succeed and consequences of national illiteracy are too grave to ignore. Results of Reading Next report might have assisted in creation and implementation of secondary literacy plans. School-wide literacy plans are varied and

numerous; some created by LEAs and some created by individual schools. Teachers and educational leadership in secondary schools nationwide develop literacy plans to address students' literacy skills, prepare students college- and career-ready, and meet local, state, and federal accountability mandates (Fisher et al., 2009).

A literacy plan created by an LEA is Geary County USD 475 Secondary Literacy Plan (SLP). SLP was a literacy plan written, in part, as a direct result Reading Next (Witte et al., 2010). Witte et al. described the school district where SLP was implemented, as the 10<sup>th</sup> largest in K-12 enrollment among 303 Kansas school districts. The district operates two middle schools, one high school, and one alternative education center. Students are military-connected, which results in high mobility. Sixty percent of students qualify for free/reduced lunch, and students from 40 different countries attend the district's high school.

SLP was created, developed, and implemented over a two-year period. The plan's purpose was to integrate research-based approaches to literacy learning across the curriculum. SLP consisted of 13 methods or instructional practices grouped around three parts of instruction: pre-reading, during-reading, and after-reading. The *pre-reading* phase helps students capture new information, categorize it, and store it. The *during-reading* phase helps students interact with a text and extract meaning from it, by using strategies such as visualizing and self-questioning. The *after-reading* phase helps students reflect on and apply ideas. Teachers were provided continual professional development to assist in implementing SLP.

SLP was launched in 2006, provided reading literacy coherence, direction, and improved student achievement across content areas for grades six through 12. SLP was

both a roadmap from the district's past and a vision for future accomplishments in secondary literacy. From 2006 onward, student achievement increased on the state's reading assessment. By 2007, one of the district's schools made AYP and earned a State Standard of Excellence in Reading award and by 2008, the school was removed from school improvement status. A culture of literacy was developed with SLP and all schools within the district continued to increase student achievement (Witte et al., 2010).

A successful school-wide literacy plan approach at the high school level was evidenced at Western High School (pseudonym). Western High School's school-wide approach to content literacy instruction is evidence of effectiveness in raising student achievement (Fisher et al., 2009). Fisher et al. presented a description of Western High School (Western). Western educated 2,000 students and is several miles away from major cities. Sixty percent of students qualify for free lunch, 40% are homeless, 23% are disabled, and 93% belong to subgroups of students, such as African American, Asian or Pacific Islander, Hispanic or Native Peoples.

Successful implementation of Western's literacy plan was a result of planned integration of a literacy plan. Teachers worked for almost three years to build students' literacy habits. To raise student achievement, content literacy instruction included four school-wide approaches. The first literacy approach was *Cornell note-taking* which requires students take notes on a larger margin on the right side of the page and use a narrower left side margin as a guide, key points, and his or her own notes, drawings, or ideas. Students used Cornell notes for all note-taking activities.

The second literacy approach of Western High School's literacy plan was *Think-Alouds*. Think-Alouds are thinking aloud while reading and were modeled by the

teacher. Every teacher conducted a Think-Aloud, every day in every class. The third literacy approach was *Writing to Learn*, which was a way to check student understanding and guide instructional practices. The final literacy approach was dedicated reading time. Students read for 20 minutes of every school day. Teachers were provided continual professional development to assist in implementation of Western High School's literacy plan.

Fisher et al. (2009) further reported Western High School's school-wide literacy plan commenced in 2002, when 12% of students were proficient on the reading portion of the state's high-stakes examination. After implementation of the school-wide literacy plan, achievement increased to 21% proficient, yet not enough to meet AYP. By 2004, 47% of students were proficient in reading on the reading portion of the state's high-stakes examination, meeting accountability targets. Western High School students continually progressed, with 54% of students scoring proficient on the state's high-stakes examination by 2005.

Another school-wide literacy plan in Brockton High School in Brockton, Massachusetts, called Literacy Initiative, focused on literacy in reading, speaking, and reasoning (Szachowicz, 2010). Szachowicz stated Brockton High School (Brockton) is a large urban high school with more than 4,200 students, 73% of whom are minorities, 68% qualify for free or reduced-priced lunch, more than 50% speak their non-English native language at home, and the majority are first in their families to graduate from high school. In 2001, Brockton had a 44% failure rate in reading and a 75% failure rate in math.

Successful implementation of Literacy Initiative included targeting a literacy skill on the basis of student performance data. A 'train the trainer' approach was used to present training to teachers. Teachers received training in interdisciplinary literacy workshops. Students received same literacy lessons, content-specific, in every classroom, according to a calendar of implementation. Teachers in every department implemented lessons according to calendar-specific dates while administrators monitored implementation. Teachers assessed literacy skills using a school-wide rubric and administrators reviewed student work to evaluate consistency of rigor across the school.

Szachowicz (2010) reported positive results for Brockton's school-wide literacy plan initiative. By 2010, Brockton was selected as a National Model School by the International Center for Leadership in Education, received "two bronze medals on the U.S. News and World Report's America's Best High Schools rankings, and was acknowledged by Harvard University's Achievement Gap Institute for closing the gap" (Szachowicz, 2010, p. 1). From 22% proficiency in reading in 2001, Brockton rose to 78% proficiency 2010; Brockton students' mathematics failure rate went from 75% to 15%, had a 3.5% drop-out rate, and 93% daily attendance. With successful implementation of Literacy Initiative, Brockton became a national model for student achievement. An important component of Brockton's school-wide literacy plan was focus on improving student achievement through rigor, relevance, and relationships (International Center for Leadership Education, 2012a).

Modeled after Brockton Literacy Initiative, a Title I magnet high school within a large school district in Arizona, *ZMHS* (pseudonym) implemented a school-wide, interdisciplinary reading literacy plan in school year 2010-2011. Brockton's literacy

model concept was used to plan the school's 301 goals, part of the school's accountability system. ZMHS's 301 goal was to increase promotion rates from grade to grade by an average of 3% for each grade per year by improving literacy of all students through implementation of a school-wide literacy plan (Tucson Unified School District, 2009). ZMHS's school-wide literacy plan was also modeled after Brockton's literacy model concept.

ZMHS 100<sup>th</sup> day student enrollment in school year 2010-2011 totalled 1779, 95.9% of whom were minorities, 83.56% qualified for free or reduced-priced lunch, more than 47% spoke their native non-English language at home, and many were first in their families to graduate from high school (Tucson Unified School District, n.d.f, school district's Food Services, personal communication, July 26, 2012; school district's Language Acquisition, personal communication, July 26, 2012).

Throughout school year 2010-2011, the school-wide, interdisciplinary reading literacy plan provided a means of reading intervention at ZMHS. Teachers in all content areas focused on teaching areas of reading strands, which were comprised of concepts supporting the reading strand. Reading strands were areas of focus because based on AIMS data, strands on which students scored below proficiency levels were Strand 1 - Vocabulary and Comprehension Strategies; Strand 2 - Elements of Literature; and Strand 3 - Expository Text. Additional areas of focus were vocabulary strategies that included 12 Powerful Words and UNRAVVEL.

Bell (2005) asserted 12 Powerful Words–*trace*, *analyze*, *infer*, *evaluate*, *formulate*, *describe*, *support*, *explain*, *summarize*, *compare*, *contrast*, *and predict*–refers to 12 words commonly used on standardized tests that cause students difficulty.

Confusion leads to wrong answers on high-stakes examinations, and teaching students the 12 powerful words can boost high-stakes examination scores, which could be a contributor to closing academic achievement gaps. UNRAAVEL is the acronym for a reading strategy assisting students' reading comprehension, particularly on standardized tests (Park Hill School District, 2014).

The school's English department teachers developed assessments incorporating concepts supporting reading strands: vocabulary and comprehension strategies and elements of literature. Other content areas focused on developing assessments incorporating concepts supporting reading strands: vocabulary and comprehension strategies and expository text. Students received same literacy lessons, content-specific and in every classroom, according to areas of focus.

Teachers created assessments on literacy lessons. Assessments were content-specific, administered as pre-assessments, mid-assessments, and post-assessments in every classroom according to a calendar of implementation. Teachers used limited department-focused professional development time and their own planning time to develop literacy assessments for respective content areas. Teachers submitted assessment results to a Data Committee. The teacher-leader of the Data Committee was the English Department Chairperson. The high school used data as a measurement of students' reading literacy rates.

Systematic changes involved with increased literacy rates include successful implementation of school-wide literacy plans (Witte et al., 2010). Students from a Title I school immersed in a school-wide, interdisciplinary literacy plan might improve reading literacy skills. Higher scores on the reading section of the state's high-stakes

examination might indicate student achievement and academic growth. A systematic literacy effort can be a powerful lever to drive a school improvement effort (Irvin et al., 2008). This study includes data results of ZMHS's school-wide, interdisciplinary reading literacy plan.

#### Conclusion

The purpose of this quantitative, retrospective, quasi-experimental nonequivalent control group study was to identify differences in achievement between students taught with reading literacy plan strategies and students taught through traditional methods. Specifically targeted were two successive cohorts of 10<sup>th</sup> grade students, beginning with school year 2009-2010 and ending with school year 2010-2011. Research used included archived AIMS examination scores of a Title I high school of one large school district in Arizona. Study results assisted in determining if an increase occurred in reading achievement of 10<sup>th</sup> grade students with implementation of a school-wide, interdisciplinary reading literacy plan intended to increase student performance on the AIMS examination.

Analysis of literature considered factors that may influence student achievement and academic growth with implementation of a literacy plan. Students from disadvantaged backgrounds, including students whose second language is English and those with disabilities, are over-represented in the low-achieving category (Patel, 2010). Supporting NCLB goals, the federal government supports reading literacy. Evidence of support is in multitude of federal grants awarded to educational institutions to increase student literacy through successful instructional strategies.

Other evidence includes funding for professional development on reading research that is scientifically based, as well as funding research on methods of instruction for students to gain knowledge needed for optimal reading development in grades K-12. For example, NCLB created Supplemental Educational Services programs to improve academic achievement of at-risk students as well as holding schools accountable for improving student proficiency in mathematics and reading/language arts (Harding, Harrison-Jones, & Rebach, 2012; U.S. Department of Education, 2004a). The overarching RTI literacy plan is representative of governmental concern that all students receive scientifically research-based reading instruction (Howard, 2009).

Use of a school-wide, interdisciplinary reading literacy plan at a Title I school might provide all students with a better opportunity to achieve academic success.

Reasons for schools' suffering performance are so complicated that no single reform plan or approach can significantly improve low-performing schools; yet a systematic literacy effort can be a powerful lever to drive a school improvement effort (Irvin et al., 2008; Taylor, 2004). Implementing a comprehensive reform plan with fidelity to its requirements is imperative for its success (Taylor, 2004). Literature indicated formulation of school-wide literacy plans is an essential blueprint for improving student achievement (Irvin et al., 2007). Educational leadership and policy makers have expressed concern about closing achievement gaps and elevating achievement of poor and minority students by aligning reading to cognitive targets, the kinds of thinking underlying reading comprehension (Boykin & Noguera, 2011; National Center for Education Statistics, 2011).

### Summary

Since the mid-1960s, federal ESEA funds have been connected to accountability through literacy, and the goal of ESEA Title I of 1965 was to financially assist LEAs serving areas with concentrations of educationally disadvantaged students from lowincome families (Spoehr, 2008; Vinovskis, 1999). Title I of the ESEA of 1965 (20 U.S.C. 6301 et seq.), was amended with the 2001 NCLB to read: Title I - Improving the Academic Achievement of the Disadvantaged, Section 101. The purpose of amendments in Section 101 was to "ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on state academic achievement standards and state academic assessments" (U.S. Department of Education, 2004b, para. 1). NCLB also allotted funds to improve literacy for subgroups of students who may not succeed because of not understanding essential elements of reading (Conley & Hinchman, 2004; U.S. Department of Education, 2004b). Under NCLB, schools were required to make state reading and mathematics benchmarks, or AMOs, to meet AYP, and Title I funds were allocated for learning support of all students in Title I schools.

Studies indicate, however, NCLB resulted in targeted gains in mathematics achievement in disadvantaged younger students, and did not improve student achievement in reading (Dee & Jacob, 2010; U.S. Department of Education, 2005b). The American Recovery and Reinvestment Act of 2009 (AARA) support includes efforts to help close achievement gaps by improving achievement and bringing students to gradelevel reading by providing a combination of funds throughout several fiscal years. For example, Texas was approved for a \$7.1 billion in AARA funding for innovative

programs to assist in improving academic achievement of disadvantaged students, disabled students, and low-performing students (Boswell, 2010; U.S. Department of Education, 2009a).

An overarching goal of NCLB to support improvement of academic achievement of disadvantaged, disabled, and low-performing students includes producing substantive student achievement (Dee & Jacob, 2010). NCLB, Title I, is to provide fairness and equality for students from disadvantaged backgrounds to meet high standards with a high-quality education. Congress increased Title I funds by at least \$750,000,000 over fiscal years 1996 through 1999 for support in closing achievement gaps and providing a high quality education for all students, including students and their parents in need of family-literacy services. A NCLB mandate also requires districts provide Supplemental Educational Services to improve academic performance, literacy, and close achievement gaps for low-income minority students enrolled in Title I schools (Harding et al., 2012; U.S. Department of Education, 2003).

Despite NCLB efforts, U.S. Department of Education estimated by 2011, over 80% of schools did not meet NCLB target mandates (The White House, 2011c). The Obama Administration issued a blueprint for reauthorization of ESEA, which provides greater flexibility to states and LEAs from specific NCLB mandates stifling reform (White House, 2011b). Until Congress reauthorizes ESEA, the U.S. Department of Education developed flexibility packages under waiver authority to help states get relief from provisions of ESEA/NCLB. States applied for flexibility waivers and were granted waivers if a plan was developed to close academic achievement gaps, promote rigorous

accountability, and ensure preparation of college and career readiness for students (The White House, 2011b; U.S. Department of Education, n.d.a).

Growing interest to close academic achievement gaps and address students' literacy needs, especially struggling readers, has contributed to creation of literacy plans all over the United States (Harmon, Hedrick, Wood, & Vintinner, 2011). An example of contributors to reading literacy plans are researchers, educators, and corporate representatives from the Carnegie Corporation of New York and Alliance for Excellent Education (Biancarosa & Snow, 2006), whose efforts emerged the Reading Next Report which includes essential features of an effective research-based adolescent literacy program (Harmon et al., 2011). The federal government is also a contributor to reading literacy plans, such as Striving Readers Comprehensive Literacy (SRCL) programs. Another example of federal literacy plan support is Reading First, a grants program for schools not meeting standards and was created to help states and LEAs use scientifically based reading research for implementation of comprehensive reading instruction for K-3 students (Stewart, 2004; U.S. Department of Education, 2009b). Policy to advance literacy skills includes disadvantaged students (Franzak, 2006).

Chapter 3 contains the method of this study, a quantitative comparative study using archived data from successive cohorts' high stakes assessment scores. This study involved using guiding questions resulting in a hypothesis to determine comparison scores as a result of student achievement on a high-stakes examination with implementation of a school-wide literacy plan compared to student achievement on a high-stakes state examination without a school-wide literacy plan. Results of this study provided aspects of a school-wide, interdisciplinary reading literacy plan that might assist

school leadership with considerations to successful implementation of a school-wide reading literacy plan as a component to curriculum.

#### CHAPTER 3

### RESEARCH METHODS

The purpose of the current quantitative, retrospective, quasi-experimental nonequivalent control group study was to identify differences in achievement between students taught with reading literacy plan strategies and students taught through traditional methods. High-stakes examination scores of two successive cohorts were used to determine differences in students' reading achievement, with a *treatment*, or intervention, for one of the cohorts. The treatment was a school-wide, interdisciplinary reading literacy plan, whereby reading literacy strategies were part of teachers' curriculum and instruction to assist low performing students' academic achievement. Demands on student academic growth continue, and using effective instructional strategies is transparent in educational reform, particularly in the area of reading (Stichter et al., 2009). This study helped to address pedagogies within a reading literacy plan that when implemented correctly, could produce increased reading achievement.

Quantitative research entails numerical measurements whereby opposite or competing results are explained according to relationships between variables (Daly, 2003). In quantitative research, variables become the basis of analysis. Differences between or relationships among variables are the premise of statistical analysis, which establishes whether differences or relationships among variables exist (Daly, 2003). Quantitative studies normally begin with words transformed into numbers that undergo several data analysis manipulations, are then reported and summarized in both words and numbers, and ultimately back to words. Therefore, quantitative data collection involves studying a number of individuals, gathering data, and transforming aspects of that social

reality into numbers and summarizing and explaining results in numbers and words (Blaikie, 2003).

Chapter 3 includes a description of the research method and design application, selected design, and research questions. Chapter 3 also includes a discussion of population used in this study, sources of data, and data collection. This chapter also includes a discussion on instrument appropriateness and corresponding instrument reliability and validity.

## **Research Method and Design Appropriateness**

### Research method

A quantitative research method is appropriate to provide the framework for analysis of data of the high school's high-stakes examination scores between students and student subgroups who participated in a school-wide literacy program and those who did not participate in a school-wide literacy program. Quantitative research is numerical measurement of variables and deductive, whereby variables become the basis of analysis. Differences between or relationships among variables are the premise of statistical analysis, which establishes whether differences or relationships among variables exist (Daly, 2003). Fowler (2009) stated quantitative research designs involve collection and statistical analysis of data and are sometimes based on quasi-experimental designs investigating statistical differences between groups. The quantitative method was preferred in this study because use of qualitative methods does not allow the researcher to identify differences between variables; observations in a qualitative study are intentionally unstructured and free-flowing.

In contrast to quantitative research, qualitative research is associated with an interpretivist stance and is used when the researcher is interested in obtaining detailed and rich knowledge of a specific phenomenon (Bryman, 2008; Creswell & Maietta, 2002); thus, the qualitative design was not appropriate for this study. Quantitative researchers use and summarize numbers to draw on statistical approaches (Alasuutari, Brannen, & Bickman, 2008). Quantitative research questions seek measurable, observable data on variables. In a qualitative study, data are typically not analyzed using statistical procedures (Leedy & Ormrod, 2010). At times qualitative and quantitative processes complement each other: quantitative research is based on a collection of a sizeable amount of data from representative samples of a larger population for a few variables, whereas qualitative research involves fewer subjects but investigates in greater depth (Black, 1999). Researchers can combine both qualitative and quantitative research designs yielding significant findings. This study did not combine research designs.

## Research Design

Among quantitative research designs frequently used are true experimental, quasi-experimental, correlational, and ex post facto (Creswell, 2005; Leedy & Ormrod, 2010). An experimental design identifies variables and indicates the way in which randomization and statistical analysis were conducted with the primary goal of establishing a causal connection between dependent and independent variables (Kirk, 2009). Kirk stated randomization is the cornerstone of a true experimental design, and "through random assignment, a researcher creates two or more groups of participants that at the time of assignment are probabilistically similar on the average" (p. 24). Kirk further stated a quasi-experimental design has features of a true experimental design

except random assignment; therefore, for practical or ethical reasons, in a quasiexperimental design, participants cannot be randomly assigned, and researchers must use intact groups that include nonrandomized assignment of participants to groups. Quasiexperimental designs are used when a relationship between a treatment group and a control group were examined. This study used nonrandomized participants; thus, a true experimental design was not be used.

Correlational designs use the correlation statistical test to describe the relationship between pairs of variables resulting from a survey of a group; the method does not establish cause and effect relations. The correlational method establishes relationship variable strengths in single samples of subjects (Black, 2002a). The correlational research design is used when researchers examine non-cause and effect relationships because correlation data alone does not prove causation. This study did not seek to find a correlation between variables, nor did it use a single sample of subjects; thus a correlational design was not used.

Ex post facto designs are used when researchers want to compare characteristics of groups based upon life events already occurred (Black, 2002b). Black stated ex post facto means *after the fact*, and although the design has the same goals of experimental studies, the difference is the degree of control the researcher has over variables. Ex post fact designs involve no direct manipulation of the independent variable (Leedy & Ormrod, p. 239). This study involved manipulation of the independent variable, thus, an ex post facto design was not used.

Among quasi-experimental designs are nonequivalent control group design, static group comparison design, and single-subject research design (Salkind, 2003). The

nonequivalent control group design is the most common of designs and includes a pretest and post-test. In a nonequivalent control group design, a created or naturally occurring phenomenon serves as the treatment, and a similar group is the control group (Grady, 1988). The nonequivalent group design must have a pretest and might include statistical methods, such as classical statistical models, to increase unbiased effect estimates with group nonequivalence; however, the statistical model may not be consistent across all nonequivalent group designs (Reichardt, 1979, as cited by Cook & Campbell, 1979).

The static group comparison design entails adding a control group for comparison to another group, has nonequivalent control group design characteristics, and does not have a pre-test (Grady, 1988). Finally, in the single-subject research design, responses are measured over time beginning with measurement of the behavior, application of a treatment, then withdrawal of the treatment. This design is a common way to test cause-and-effect relationships (Grady, 1988; Salkind, 2003). The static group comparison design did not qualify for this study because this study used a pre-test, nor did the single-subject design because this study did not withdraw the treatment or test for cause and effect.

Most inferential statistical tests used to compare groups are based on assumptions that group membership is selected randomly and differences between groups are entirely by chance (Leedy & Ormrod, 2010), thus a true experimental design. This study was not true experimental because nonrandomized groups were used. Quasi-experimental designs are useful when random assignment is impossible (Grady, 1988). The nonequivalent control group design has two sets of nonrandomized participants. One set

of participants is assigned to an experimental (treatment) group, given a pre-test, a treatment, and a post-test. The other set of participants is assigned to a control group, given a pre-test, no treatment, and a post-test.

The nonequivalent control group design is useful when similar groups are available to form the treatment and control groups (Posavac & Carey, 2007). Intact groups such as a classroom of learners, nursing home residents, or factory workers, are used in a nonequivalent control group design (Salkind, 2003). Nonrandomized participants in this study consisted of two similar intact groups of successive cohorts, for which AIMS retrospective examination scores of samples of two nonequivalent intact groups totaling 742 10<sup>th</sup> grade students and subgroup of students were collected and analyzed. The data were retrieved from pre-test and post-test retrospective scores of nonrandomized participants, for which a treatment was administered between tests. Additionally, a *retrospective*, quasi-experimental nonequivalent control group study was best because the school and students in this study could not be selected randomly.

Among methods of collecting data are prospectively and retrospectively.

Prospective data collection involves gathering data as a study unfolds, whereas retrospective data collection involves gathering data from past events (Scott & Alwin, 1998). The school-wide, interdisciplinary reading literacy plan was implemented before this study, pre-test and post-test data collected were not analyzed prior to this study, and participants were not randomly assigned to either the treatment or control group. The purpose of this study was to identify differences in achievement between students taught with reading literacy plan strategies and students taught through traditional methods, which entailed analyzing the score differences with retrospective assessment data—post-

intervention—with nonrandomized groups of students; therefore, a retrospective, quasiexperimental design was appropriate for this study.

The study used a one-tailed t test and analysis of variance, or ANOVA, as statistical analyses tests on the nonequivalent control group design. Statistical analyses were derived from archived pre-test and post-test scores of students and student subgroups. A one-tailed t test identified differences between scores of a control group, which received regular instruction without strategies of the school-wide reading literacy plan, and a treatment group, which received enhanced instruction using strategies of the school-wide reading literacy plan. A one-tailed t test is applied when research begins with specific research hypotheses, and subsequent statistical analyses conducted to test these hypotheses (Leedy & Ormrod, 2010). Further, one-tailed tests are applied when previous research indicates a probable direction, for which an example is a directional, alternative hypothesis when a researcher predicts a direction could only be one way, or when the researcher predicts a direction of difference (Black, 2002b; Creswell, 2005). ANOVA is applied when research compares three or more groups for purposes of determining the extent to which the effect of an independent variable is a major component (Black, 2002b; Girden, 1992).

#### **Population**

Results of a study can be generalized from a population, or participants of a study, and results generalized from a population's sample can be applied to settings outside of where results were obtained (Salkind, 2003). Population and therefore, samples, selected for this study were 10<sup>th</sup> grade students from one urban high school in southeastern Arizona. Sample selection was deliberate because the AIMS examination was

administered to 10<sup>th</sup> grade students and according to AIMS data for students enrolled in the high school researched in this study, students were in need of an academic intervention in the reading portion of the high stakes examination. Thus, selection of samples of 10<sup>th</sup> grade students was logical since the school-wide, interdisciplinary reading literacy plan was implemented for the 10<sup>th</sup> grade cohort, and measuring the reading literacy plan's success, or lack thereof, was possible by analyzing differences in AIMS scores between the 10<sup>th</sup> grade cohort without the literacy plan and the 10<sup>th</sup> grade cohort with the literacy plan. Samples from each cohort were selected with the convenient sampling method. Student enrollment at the high school was 1769 in 2009-2010 and 1779 in 2010-2011 (Tucson Unified School District, n.d.f). The high school was a communications and college preparatory magnet. This study included the particular high school because the high school was a Title I school located in a low socioeconomic community, and high-stakes student examination scores in reading fell below proficiency rates.

#### **Informed Consent**

Informed consent may become necessary in several aspects of research, necessitating consent of individuals involved, organizations, and groups (Israel, 2006). A request to conduct research within the district was submitted to the district's department of accountability and research. Approval notification form originated from the district's research project manager and included a form to be signed by principals or department heads, granting or refusing permission for research to be conducted at the high school. Students' names and matriculation numbers were not needed or used in this study. Students participating in this study did not provide data directly for the research.

Analyses of test scores were key to this study, and retrospective students test scores were retrieved through archived databases from the Arizona Department of Education and school district's office of accountability and research. The high school's school-wide literacy plan's teacher leader agreed to provide pre-test student scores. Enrollment data was provided by the high school's registrar's office, confirmed by the school district's public database system. Employee names remained confidential. Consent from students, parents, teachers, and administrative staff of the high school were not required.

Consent for the school-wide reading literacy plan was not necessary. For school year 2009-2010, 10<sup>th</sup> grade high school English teachers routinely used reading strategies as part of Arizona State Standards requirement. For school year 2010-2011, 10<sup>th</sup> grade high school English teachers used Arizona State Standard requirements in addition to the school-wide, interdisciplinary reading literacy plan. The school-wide, interdisciplinary reading literacy plan was part of the high school's professional development process and accountability plan for all teachers at the high school used for this study.

## **Target Population**

A sample consists of a portion of larger group, or population, and the population are all those in the large group who are part of a study (Fink, 2003). A target population is, therefore, the universe consisting of a group of people who possess common characteristics, and a sample is a representation of the target population. A target population is what a researcher studies for purposes of generalization. Fink stated nonprobability sampling is used because units can be assembled conveniently, representing some characteristic the researcher seeks to study. A nonprobability

sampling method is convenience sampling, which consists of a group of people ready and available for the study; participants are chosen because they are available (Ervin, 2002). The samples for this study were students ready and available for the study, with one cohort's sample as part of the control group and the other cohort's sample as part of the treatment group.

The sample for this study was from 10<sup>th</sup> grade students from one high school, whose ages normally ranged from 14 to 15 years. Specifically targeted for this study were two successive cohorts of 10<sup>th</sup> grade students, beginning with academic school year 2009-2010 and ending with school year 2010-2011. Target population in this study was not assigned; it was the population already matriculated at the high school, thus, the use of nonrandomized groups. Intact classrooms meant no control over selection of students.

This study used archived data on two cohorts of students' benchmark assessments (pre-test), and AIMS (post-test) examination scores. Similarities existed in demographics between the two cohorts, such as SES, ethnicity, and test scores. Control and treatment groups included five major ethnic groups (*Hispanic, White, African American, Asian Pacific Islander, and Native American*), English Language Learners (ELL), Students with Disabilities, and students from low-income families (Arizona Department of Education, 2011g). The high school's 100<sup>th</sup> day student enrollment during the 2010-2011 school year was 1779 students, 95.9% of whom were ethnic minorities, 83.56% qualified for free or reduced-priced lunch, more than 47% spoke a language other than English in the home, and many were first in their families to graduate from high school (Tucson Unified School District, n.d.f; school district's Food Services, personal communication, July 26, 2012).

## **Confidentiality**

Maintaining confidentiality entails containing information about participants in strict confidence, disguising information if necessary, and keeping data in a controlled situation (Salkind, 2003). The teacher-leader agreed to provide pre-test data submitted by teachers for the treatment group; other pre-test and post-test data were obtained from district and state archived databases. The registrar provided enrollment numbers for both school years 2009-2010 and 2010-2011, verified by the district's public database. Using numerical data instead of proper names kept identity of participants confidential.

## **Geographic Location**

One high school served as the setting for the research. Both control and treatment groups were in Pima County in southeastern Arizona. The 2010 Census provided information on Pima County demographics. In 2010, the population of Pima County totaled 980,263, of which 54.8% were White persons not of Hispanic descent, 35% were Hispanic, 4.0 were African American, .0.2% were Pacific Islander, 2.8% were Asian, and 4.2% were Native American (U.S. Census Bureau, 2010). The 2010 Census provided information about language spoken at home. In Pima County in 2010, 71.4% spoke only English and 28.6% spoke a language other than English. Of the 28.6% who spoke a language other than English, 69.4% spoke English *very well* and 30.6% spoke English *less than very well* (U.S. Census Bureau, 2010).

#### Instrumentation

This study required analysis of retrospective secondary data to determine differences between scores of a control group and a treatment group. The control group received regular instruction without strategies of the school-wide reading literacy plan,

whereas the treatment group received enhanced instruction using strategies of the school-wide reading literacy plan. Examination and scores used in this study for the control group were fall 2009 reading benchmark scores (pre-test) and spring 2010 AIMS examination scores (post-test). Examination and scores used in this study for the treatment group were fall 2010 school-wide literacy plan assessment scores (pre-test) provided by the teacher-leader, and spring 2011 AIMS examination scores (post-test). Retrospective data used in this research study included scores from archived databases of Arizona Department of Education, the district's department of accountability and research, high school's registrar, and, once shared, from high school's treatment group's data collection team's teacher-leader.

Data in this study are public, with valid test score databases compiled by Arizona Department of Education and the school district. Enrollment data for the high school are also public. Retrospective test scores for student cohorts were compiled from archival data. Appendices B and C reflect Premises, Recruitment and Name (PRN) Use Permission forms, signed appropriately for use of premises while collecting data.

An instrument in this study used to measure student scores was the AIMS examination, a standards-based state examination which measured student proficiency of Arizona Academic Content Standards, as required by federal law. Standards measured were in writing, reading, mathematics, and most recently, science (Arizona Department of Education, 2012c). AIMS is an item used to determine whether or not an educational system makes AYP. A second instrument in this study used to measure student scores was the 2009, *quarter one* high school reading benchmark examination. The high school administered quarterly reading assessments and first quarter benchmark assessment was

the best measure to accommodate a pre-test score. A third instrument in this study used to measure student scores was the 2010 school-wide, interdisciplinary reading literacy plan's *quarter one* assessment. The school-wide, interdisciplinary reading plan assessment system included quarterly benchmarks created by teachers to determine students' reading comprehension levels.

Students' reading comprehension level, thus performance, was expressed in test scores of standardized school benchmark examinations and state high-stakes achievement examinations. Combining a group's test scores can provide a summary score more generalizable than individual measures (Townsend, Christensen, Kreiter, & zumBrunnen, 2010). Yarbrough, Shulha, Hopson, and Caruthers (2011) stated generalizability is the "extent to which information about a project or instructional material collected in one setting can be used to reach a valid judgment about how it will perform in other settings" (p. 288). Therefore, standardized test scores via the AIMS examination instrument allow generalization to this study.

#### **Data Collection**

Data collection involves acquisition of statistics and other types of information about the study (Ervin, 2002). The first step in data the collection process entailed knowing what information to collect, followed by the process of collecting data.

Quantitative data collection is tailored to a research study yet takes into consideration the need to gather and compare data from different sources and dimensions (Griffiths, 2009). Further, collecting data can involve contacting sources, traveling to data sites, and recording data on special forms, such as spreadsheets (Salkind, 2003). Forms for this

study's data collection were on statistical spreadsheets. Data from spreadsheets were analyzed.

Characteristics of distribution of scores were analyzed through descriptive statistics, followed by inferential statistics. Salkind (2003) stated inferential statistics assist with deciding the relationship between the data collected and hypotheses, and how data may be generalizable. This study used secondary data because secondary data could be collected from already available sources (Clark & Shadish, 2007). Clark and Shadish also provided data not measurable by assigning a value are generally considered qualitative, and data subjected to some kind of quantification or measurement are generally considered quantitative. Qualitative data collection was not relevant to this study because this study determined differences in scores of students in different cohorts and student achievement; collecting quantitative data statistically assisted in determining if a treatment, the school-wide, interdisciplinary reading literacy plan had an effect on the treatment cohort's reading achievement scores in the state's high-stakes examination.

Appendix A reflects Data Access and Use Permission form granting permission to the researcher of accessing and using data necessary for this study.

The study sought to determine whether a significant difference existed between reading achievement scores of 10<sup>th</sup> grade students taught using enhanced instruction through a school-wide reading literacy plan intended to increase reading achievement, and reading achievement scores of 10<sup>th</sup> grade students taught using traditional instruction. Achievement of 10<sup>th</sup> grade students in the area of reading was quantified, using pre-test scores from benchmark examination and post-test scores from standardized AIMS examination.

School year 2009-2010 pre-test scores were accessed and collected through the school district's statistics page. School year 2010-2011 pre-test scores were to be accessed and collected from the high school's data collection team's teacher-leader. Both school years' post-test scores consisted of AIMS examinations results. Post-test scores, students and student subgroups, were collected through Arizona Department of Education and school district's archived databases. Test results were downloadable in Microsoft Excel, a spreadsheet application used to display and make various mathematical calculations on numerical data (Harvard Medical School Information Technology Department, 2012). Statistical analyses were performed on Microsoft Excel using StatPlus:mac, and Predictive Analysis Software (PASW) Statistics Pack through Statistical Program for the Social Sciences (SPSS).

This quantitative, retrospective, quasi-experimental nonequivalent control group study used archived standardized test scores of intact groups of 10<sup>th</sup> grade students and student subgroups. This research study compared AIMS examination scores of a control group comprised of 307 students in one high school without the enhanced instruction of a reading literacy plan, and test scores of a treatment group comprised of 434 students in one high school with the enhanced instruction of a reading literacy plan. Student performance of each group i.e., pre-test scores, or benchmark scores, between two cohorts of 10<sup>th</sup> graders' AIMS scores with and without enhanced instruction of the reading literacy plan, and post-test scores between two cohorts of 10<sup>th</sup> graders' AIMS scores with and without enhanced instruction of the reading literacy plan, were compared through statistical analyses. This study did not require interaction with parents, guardians of students, or students; therefore, parental consent was not necessary. Scores analyzed

consisted of archived data retrieved from the state of Arizona, the public school district's research and accountability department, the high school's registrar, and the high school's data collection team's teacher-leader. Data analyses of this study focused on differences in reading scores.

## **Data Analysis**

Data analysis consists of one or more procedures applied to a set of data for the purpose of discovering trends, differences, and similarities (Clamp, Gough, & Land, 2004). A data form is the first step in data analysis, and coding data helps reduce clutter and ambiguity in meaning (Salkind, 2003). In a quantitative study, data analysis consists of statistical analysis and describing trends, comparing groups, or relating variables; most inferential statistical tests used to compare groups are based on the assumption that participants are randomly selected and differences between them are due entirely by chance (Leedy & Ormrod, 2010). Quantitative research questions seek measurable and observable data on variables; thus, the quantitative research method was appropriate for retrieving statistical data from pre-test and post-test scores to identify and analyze differences between groups, or cohorts, for purposes of this study's data analysis.

Hypotheses were tested with a one-tailed *t* test to identify and measure differences in achievement between two cohorts of students. Analysis of variance, or ANOVA, is another statistical test, which involves comparing three or more groups (Black, 2002b). ANOVA's purpose "is to determine the extent to which the effect of an independent variable is a major component" (Girden, 1992, p. 1). Therefore, ANOVA was the statistical test choice in the nonequivalent control group design to test the hypotheses

comparing scores of groups of students and subgroups of students, the English Language Learners, and *t*he Students with Disabilities.

Research questions provided a guide for data analysis. Findings were interpreted to decide if differences existed between scores of a control group, which received regular instruction without strategies of the school-wide reading literacy plan, and a treatment group, which received enhanced instruction using strategies of the school-wide reading literacy plan. The study used retrospective, secondary, archived data for the state's high-stakes examination, the district's benchmark assessments, and for high school's school-wide reading literacy plan's teacher-constructed benchmark assessments. Changes in reading achievement of each cohort were examined through data analysis. A statistical level of significance was used to test the hypotheses.

## Validity and Reliability

Kurpius and Stafford (2006) and Neuman (2006) stated reliability and validity are desired properties of tests. Reliability suggests dependability or consistency and can be defined as trustworthiness or accuracy of a measurement. Perfect reliability (*r*=+1.00) means anyone who takes a test gets the same answer every time. Consistency is the degree to which a test measures the same thing at different times or different situations, and stability addresses whether the test measure delivers the same answer at different times or different situations; both consistency and stability make a reliability coefficient. A reliability coefficient is a measure of consistency and refers to scores obtained on a test. Kurpius and Stafford (2006) stated validity suggests *truthfulness* and is defined as how well a test measures what it is designed to measure and tells what can be inferred from test scores. Evidence of validity is accuracy of interpretation of test scores, not the

test itself. Validity has three distinct aspects: content, criterion, and construct (Muijs, 2004).

AIMS is an annual high-stakes examination and contains dimensions of content, criterion, and construct validity. The Arizona Department of Education (2011e) noted content validity was established in creating AIMS, including reliance on stakeholder recommendations. For example, AIMS development was comprised of educators, curriculum specialists, and administrative leaders from across the nation and has been administered to hundreds of students (Arizona Department of Education, 2011e). The Arizona Department of Education has established construct validity for AIMS by assessing hundreds of thousands of students and producing outcome examinations since the implementation of AIMS starting with the class of 2002 in school year 1999-2000 (Jorgenson, 1999). According to Arizona Department of Education's 2011 Technical Report, AIMS was "designed and developed to provide fair and accurate ability scores that support appropriate, meaningful, and useful educational decisions" (p. 1). The AIMS examination was designed and developed for all students, including the disadvantaged, for an opportunity to reach proficiency on state academic standards.

The 2011 Technical report also noted additional validity evidence is found in test design, test development, test administration, classical item analysis, calibration, scaling, equating, reliability, and reclassification. AIMS measures what it is designed to measure: student achievement of academic content state standards. Interpretation of test scores is pre-determined. AIMS is graded electronically and uses the FAME scale to assess whether a student passes or fails the examination. The AIMS examination instrument can also theoretically predict or be related to other measures, and collecting information on

these measures determines criterion validity; thus, AIMS establishes criterion validity. Arizona Department of Education has established AIMS examination contains theory relating to concept so that variables are predicted and related to, and AIMS measures the relationship between a measure and related factors (Muijs, 2004).

Arizona Department of Education (2011e) noted Standards for Educational and Psychological Testing referred to reliability as consistency of a measure when a population is tested repeatedly using the same testing procedure. Arizona Department of Education further stated reliability of AIMS was estimated by internal consistency of the multiple-choice and writing test scores. Additionally, Cronbach's alpha was the measure used for internal consistency for both 2010 and 2011 AIMS and high degree of internal consistency was evident in the criterion-referenced tests, which included the reading portion of AIMS for statewide results. Standardized tests have uniform procedures with respect to administration and failure to adhere to publisher's guidelines to administer tests can destroy validity of scores (Gay, 1990). Maintaining reliability and validity depends on test proctors using such uniform procedures with AIMS administration.

AIMS examination scores were used in this study. Also used in this study were school district's benchmark examination scores (pre-test scores). The goal of benchmark examinations was to provide information about students' understanding of reading content. Benchmark examinations align to state standards (Tucson Unified School District, 2012b). Validity and reliability for the school district's benchmark examinations for 10<sup>th</sup> grade students parallel validity and reliability for the AIMS examination. The school district's benchmark examinations have been administered to hundreds of students, further establishing both reliability and validity.

Evidence of reliability includes equivalence. McMillan and Schumacher (2010) described equivalence as comparability of two measures of the same trait given at about the same time, and equivalence procedure is administering different forms to the same individuals at about the same time. Common equivalence reliability examples are achievement tests. Reliability increases when like-examinations are administered twice in one school year: once in the fall and once in the spring. The district's benchmark is administered in the fall and the state's high-stakes examination is administered in the spring.

Other scores used in this study were from school-wide reading literacy plan assessments. The school-wide reading literacy plan examination scores were the result of enhanced instruction to the 2010-2011 high school cohort of 10<sup>th</sup> grade students. Although development of reading literacy plan benchmark assessments relied on teachers, many with limited knowledge of reading strategies, assessments could be characterized as possessing equivalence reliability. Neuman (2006) stated validity is how well a test measures what it is designed to measure and tells what can be inferred from test scores. Evidence of validity is accuracy of interpretation of test scores, not the test itself (Kurpius & Stafford, 2006). Evidence of reliability and validity in the high school's school-wide, interdisciplinary reading literacy plan examination scores was anticipated.

Clark and Shadish (2007) stated threats to internal validity are crucial to making causal claims from quasi-experiments. Miller and Salkind (2002) stated extraneous variables to internal validity include history, maturation, testing, instrumentation, statistical regression, biases, experimental mortality, and selection-maturation interaction. This study used intact groups; Salkind (2003) stated using intact groups decreases the

power of the quasi-experimental design to establish causal relationships because of doubts about group equivalence. Further, Salkind stated selection is among the threats to the nonequivalent design because groups might differ initially on characteristics related to the dependent variable.

# Summary

This study followed a quantitative research method, retrospective, quasiexperimental nonequivalent control group design. Chapter 3 outlined methods this study
used to determine if a difference existed in reading achievement of 10<sup>th</sup> grade students
after enhanced instruction using school-wide reading literacy plan strategies. The
retrospective, quasi-experimental nonequivalent control group research design was used
to examine differences in reading achievement scores between two groups. The
quantitative research method was used because the quantitative approach measures facts
objectively and data can be statistically analyzed (Neuman, 2006). The nonequivalent
control group design was used because the design has two sets of nonrandomized
participants. The first set of participants was assigned as the control group, given a
pretest, no treatment, and a post-test. The second set of participants was assigned as the
treatment group, given a pretest, a treatment, and a post-test (Salkind, 2003).

A one-tailed *t*-test and ANOVA were used in the nonequivalent control group design to analyze data. Results of data analyses determined whether treatment group scores were higher than the control group scores to a significant degree. Directional hypotheses assisted in selecting a one-tailed *t* test for analysis; comparison of three or more groups to test analysis of variance assisted in selection of ANOVA. This study was analyzed with retrospective archival secondary data from the Arizona Department of

Education, school district's department of accountability and research, and from the literacy plan's data collector, as findings from two cohort's reading achievement differences in one urban, Title I high school in southeastern Arizona.

Chapter 4 includes data analyses findings. Data includes pre-test and post-test scores of two cohorts: the control group and the treatment group. Chapter 4 includes the use of *t*-tests as the statistical analyses method, with an explanation of why the use of ANOVA became irrelevant after the necessary change of design from nonequivalent control group to static group comparison and therefore, not used. Chapter 4 presents key findings in form of tables, graphs, and figures.

#### **CHAPTER 4**

### **RESULTS**

The purpose of this quantitative, retrospective, quasi-experimental nonequivalent control group study was to identify differences in achievement between students taught with reading literacy plan strategies and students taught through traditional methods. This study included use of a school-wide reading literacy plan implemented by school leadership through high school teachers to raise literacy rates of high school students, thus high-stakes examination scores. This study examined pretest (benchmark) scores between two cohorts of 10<sup>th</sup> grade students with and without enhanced instruction of the reading literacy plan, and posttest (AIMS) scores between two cohorts of 10<sup>th</sup> grade students with and without enhanced instruction of the reading literacy plan. Two cohorts consisted of a control group comprised of 307 students and a treatment group comprised of 434 students. This study was possible by analyzing pre-test and post-test scores of both cohorts. Scores were analyzed statistically to evaluate differences in academic achievement between cohorts from school years 2009-2010 and 2010-2011.

Upon data collection, however, findings of incongruent and inconsistent data jeopardized existing sound hypotheses and accurate statistical analyses. Black (1999) stated changing hypotheses is justifiable when necessary because "carefully defining concepts and consequential constructs helps to eliminate ambiguity and establishes a basis for ensuring construct validity and reliable operational definitions of the variables" (p. 57). The hypothesis for this study required modification, and for clarification purposes, initial research questions and hypotheses are presented in this chapter, as are corresponding data. The latter section of Chapter 4 reflects the appropriate research

question and hypothesis, with an explanation of how unwanted variables were controlled. Further, as a result of necessary modifications, the research design changed from non-equivalent control group to static group comparison. Although similar to non-equivalent control group design, the static group comparison design does not include a pre-test (Salkind, 2003).

Chapter 4 presents data statistical analyses findings and discussion of analyses.

Data include pre-test and post-test scores of two cohorts: the experimental group and control groups for the initial research questions and hypotheses. After tables with pre-test and post-test illustrations and the unsuccessful attempt at accurate and true data analyses results, the emergent appropriate research question, hypothesis, and data analysis are presented. Chapter 4 includes the statement of the problem, research questions, review of data collection process, analysis of data, results, findings, and summary. Chapter 4 presents key findings as quantitative results in the form of tables, graphs, and figures.

## **Statement of the Problem**

The problem in this study addresses students' reading achievement in American schools not meeting NCLB target mandates. NCLB prescribes that by 2014, 100% of students become proficient in reading and mathematics, yet since 2002, 37% of America's schools have not met NCLB targets. The percentage more than doubled in 2011, when the U.S. Department of Education estimated over 80% of American schools might not meet NCLB target mandates. Many Title I schools, governed by NCLB mandates, do not meet annual measurable objectives set by states (U.S. Department of Education, n.d.b).

The general problem is some Arizona schools do not meet the annual measurable objectives and do not make adequate yearly progress (U.S. Department of Education, n.d.b). The specific educational issue examined is the relationship between scores for students who receive and students who do not receive enhanced instruction from a school-wide reading literacy plan focusing on vocabulary and comprehension strategies, elements of literature, and expository text, and student achievement on Arizona's high-stakes examination.

This retrospective, quasi-experimental study used a one-tailed *t* test as the statistical analysis to evaluate and determine the answer to research questions and to reject or fail to reject the null hypotheses.

## **Research Questions**

The independent variable of this research was the instructional approach, or the school-wide literacy plan. Dependent variables of this study were AIMS examination scores of two 10<sup>th</sup> grade cohorts representing control and treatment groups. Research questions in this study provided a guide for data analysis. Research questions that guided this study were:

- 1. What is the degree of difference between the pre-test and post-test scores of the cohort of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the cohort of students who received enhanced instruction using strategies of the school-wide reading literacy plan?
- 2. What is the degree of difference between the pre-test and post-test scores of the English Language Learner subgroup of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the English Language

Learner subgroup of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

3. What is the degree of difference between the pre-test and post-test scores of the Students with Disabilities subgroup of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the Student with Disabilities subgroup of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

## **Hypotheses**

The study determined whether a significant statistical difference existed between reading achievement scores of 10<sup>th</sup> grade students, and some subgroups of students, taught using enhanced instruction through a school-wide reading literacy plan intended to increase reading achievement, and scores of students taught using traditional instruction. The following hypotheses were used in this study to determine differences between variables:

H<sub>0</sub>1: There is no difference in the reading pre-test and post-test scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the cohort of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>A</sub>1: There is a difference in the reading pre-test and post-test scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the cohort of students who

did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>0</sub>2: There is no difference in the reading pre-test and post-test scores of the English Language Learner subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the English Language Learner subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>A</sub>2: There is a difference in the reading pre-test and post-test scores of the English Language Learner subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the English Language Learner subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>0</sub>3: There is no difference in the reading pre-test and post-test scores of the Students with Disabilities subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the Students with Disabilities subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>A</sub>3: There is a difference in the reading pre-test and post-test scores of the Students with Disabilities subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to pre-test and post-test scores of Students with Disabilities subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

### **Data Collection**

This study used retrospective archived data for a high school in one large school district in Arizona. Testing and enrollment data in Chapter 4 are most accurate and supersede data in previous chapters of this study. Data for this study were retrieved from Arizona Department of Education's website, the district's department of accountability and research, the high school's registrar, and from the high school's treatment group's data collection team's teacher-leader. Data included pretest and posttest scores for two successive 10<sup>th</sup> grade cohorts in school years 2009-2010 and 2010-2011. Each cohort was tested in a reading benchmark examination in the fall. The same 10<sup>th</sup> grade cohorts were tested in an AIMS reading examination in the spring. Data did not include student names. Data included demographic information such as ethnicity, English language learners, and students with disabilities, as well as pretest and posttest scores for reading. Total student count based on 100th day enrollment for the high school was 1769 in 2009-2010 and 1779 in 2010-2011. Cohorts consisted of 307 and 434 10<sup>th</sup> grade students in school years 2009-2010 and 2010-2011, respectively (Tucson Unified School District, n.d.f).

# **Demographics**

Title I school demographics traditionally include measurable variables such as ethnicity and socio-economic status (SES). Demographic variables were significant to results of this study because equitable achievement among students and subgroups of students is a reading accountability goal in Title I schools (Daly, Der-Martirosian, Ong-Dean, Park, Wishard-Guerra, 2011). Title I student variables of ethnicity and subgroups of students were relevant demographic descriptors in this study. Ethnicity, students'

scores, and subgroups of students' scores, were variables in the first and second study samples. Student scores of subgroups *ELL* and *Students with Disabilities* were variables in the third and fourth samples of this study.

The first sample used for this study consisted of a cohort of 10<sup>th</sup> grade students in school year 2009-2010. Based on data available from the database of the large school district, pre-test scores for cohort 2009-2010 consisted of 240 students, and post-test scores consisted of 307 students. Pre-test scores were the district's assessment Measure of Educational Progress (MEP), which tests students in reading (Tucson Unified School District, n.d.e). Scores were recorded according to the FAME scale, or performance level descriptors [falls far below the standard, approaches the standard, meets the standard, and exceeds the standard (Arizona Department of Education, 2010b). Scaled scores and the FAME scale were available on database tables for both pre-test and post-test data for the 2009-2010 cohort. Pre-test scale scores were represented as zero; post-test scale scores ranged from 500 to 900. Scale scores represent raw scores converted to a scale score metric, a measure used in Arizona schools to measure student performance on the AIMS examination (Arizona Department of Education, 2014d). Table 4 reflects Arizona's scale score metric; therefore, relevant high school scale scores for both cohorts (Arizona Department of Education, 2014b; Arizona Department of Education, 2014c).

Table 4
Spring 2010 and 2011 AIMS Scale Scores and Performance Levels

HS Performance Level	Scale Score		
Falls Far Below	500-626		
Approaches	627-673		
Meets	674-772		
Exceeds	773-900		

Table 5 shows ethnicity, high school scaled scores, and performance levels for the MEP (pre-test) examination of the 2009-2010 10<sup>th</sup> grade cohort of the study sample (Tucson Unified School District, n.d.c). Reading mean scaled scores for this cohort were available as *zero* values only.

Table 5

Ethnicity and MEP Scores of 2009-2010 Cohort Study Sample

Grade 10 Ethnicity	White	African American	Hispanic/ Latino	Native American	Asian American	Multi Racial	Total
Reading Mean Scaled Score	0	0	0	0	0	0	0
Reading percent Falls Far Below	0.0	33.3	8.5	0.0	0.0	0	8.3
Reading percent Approaches	14.3	0.0	26.4	14.3	0.0	0	24.6
Reading percent Meets	85.7	66.7	64.2	85.7	100.0	0.0	66.3
Reading percent Exceeds	0.0	0.0	0.9	0.0	0.0	0.0	0.8
Total	14	6	212	7	1	0	240

Table 6 shows ethnicity, high school scaled scores, and performance levels for the AIMS examination of the 2009-2010 10<sup>th</sup> grade cohort of the study sample (Tucson Unified School District, n.d.a).

Table 6

Ethnicity and AIMS Scores of 2009-2010 Cohort Study Sample

Grade 10 Ethnicity	White	African American	Hispanic/ Latino	Native American	Asian American	Multi Racial	Total
Reading Mean Scaled Score	695	674	690	717	740	732	691
Reading percent Falls Far Below	13	22	9	0	0	0	9
Reading percent Approaches	19	22	26	11	0	0	25
Reading percent Meets	69	56	63	78	100	100	64
Reading percent Exceeds	0	0	3	11	0	0	3
Total	16	9	270	9	2	1	307

The second sample used for this study consisted of a cohort of 10<sup>th</sup> grade students in school year 2010-2011. School leadership at the Title I high school of this study opted to not administer the MEP examination to the 2010-2011 cohort. Instead, the school-wide literacy plan design included teacher-created assessments. However, upon collection of benchmark assessment data for the purpose of this study, it was discovered

data were not appropriately collected, compiled, or disseminated. Therefore, the option was to use Stanford 10 assessment scores of the 10<sup>th</sup> grade 2010-2011 cohort. The 10<sup>th</sup> grade students of the 2010-2011 cohort were assessed as ninth graders in spring of 2009-2010 with the Stanford 10 examination because Stanford 10 is a norm-referenced state mandated assessment administered to students in Grades 2-9 in reading, Language Arts and mathematics, for which performance is reported as a percentile rank or *Normal Curve Equivalent* [NCE] (Tucson Unified School District, n.d.i).

Based on data available from the database of the large school district, pre-test scores for the 2010-2011 cohort consisted of 382 students, and post-test scores consisted of 434 students (Tucson Unified School District, n.d.b; Tucson Unified School District n.d.j). Stanford 10 scores were recorded as NCE performance, and post-test scores were recorded according to criterion-referenced AIMS examination's *FAME* scale, or performance level descriptors [*falls far below the standard, approaches the standard, meets the standard, and exceeds the standard*] (Arizona Department of Education, 2010b). Posttest scale scores ranged from 500 to 900. The merit of both criterion-referenced and norm-referenced scoring has validity based on longevity of both systems and the alignment of each scoring system to the respective assessment instrument. The integrity of this study was not compromised by the scoring systems.

Table 7 shows ethnicity and normal curve equivalent performance according to the Stanford 10, the pretest examination for the 2010-2011 10<sup>th</sup> grade cohort of the study sample (Tucson Unified School District, n.d.j).

Table 7

Ethnicity and Stanford 10 NCE Results for 2010-2011 Cohort

Cohort 2010-2011 Ethnicity	White	African American	Hispanic/ Latino	Native American	Asian American	Multi Racial	Total
Reading Mean NCE	41.1	36.0	41.6	37.9	63.1	0.0	41.3
Total	16	13	330	20	3	0	382

Table 8 shows ethnicity, scaled scores, and performance levels for posttest, or AIMS examination of the 2010-2011 10<sup>th</sup> grade cohort of the study sample (Tucson Unified School District, n.d.b).

Table 8

Ethnicity and AIMS Scores of 2010-2011 Cohort Study Sample

Grade 10 Ethnicity	White	African American	Hispanic/ Latino	Native American	Asian American	Multi Racial	Total
Reading Mean Scaled Score	681	693	691	683	732	0	690
Reading percent Falls Far Below	11	10	5	7	0	0	5
Reading percent Approaches	28	0	28	43	0	0	28
Reading percent Meets	61	90	64	50	100	0	64
Reading percent Exceeds	0	0	4	0	0	0	3
Total	18	10	390	14	2	0	434

The third sample used for this study consisted of 10<sup>th</sup> grade English Language

Learners (ELLs) in school years 2009-2010 and 2010-2011. Table 9 shows pre-test mean scaled score for ELLs of the 2009-2010 10<sup>th</sup> grade cohort according to the MEP examination, and pre-test NCE mean score for ELLs of the 2010-2011 10<sup>th</sup> grade cohort,

according to Stanford 10 examination (School district's research and accountability department, personal communication, April 11, 2014).

Table 9

Pre-test scores of 2009-2010 and 2010-2011 ELL Study Sample

Grade 10 ELLs	Cohort 2009- 2010 ELLs MEP	Cohort 2010- 2011 ELLs Stanford 10	
Reading Mean Scaled Score	11.66	NCE Mean Score	9.39
Reading percent Falls Far Below	9		Not applicable
Reading percent Approaches	13		Not applicable
Reading percent Meets	2		Not applicable
Reading percent Exceeds	0		Not applicable
Total	24		25

Note: Stanford 10 examination does not use the FAME scale for students' level of performance.

Table 10 shows scaled score and performance levels for post-test, or AIMS examination of two cohorts of 10th grade English Language Learners (ELLs) in school years 2009-2010 and 2010-2011 of the study sample (Tucson Unified School District, n.d.h).

Table 10

AIMS Scores of 2009-2010 and 2010-2011 ELLs Study Sample

Grade 10 ELLs	2009-2010	2010-2011
Reading Mean Scaled Score	Not available	Not available
Reading percent Falls Far Below	59.09	50.00
Reading percent Approaches	36.36	50.00
Reading percent Meets	4.55	0
Reading percent Exceeds	0	0
Total	22	14

The fourth sample used for this study consisted of 10<sup>th</sup> grade Students with Disabilities in school years 2009-2010 and 2010-2011. Table 11 shows pre-test mean scaled score for Students with Disabilities of the 2009-2010 10<sup>th</sup> grade cohort according to the MEP examination, and pre-test NCE mean score for Students with Disabilities of the 2010-2011 10<sup>th</sup> grade cohort according to the Stanford 10 examination (School district's research and accountability department, personal communication, April 11, 2014).

Table 11

Pre-test scores of 2009-2010 and 2010-2011 Students with Disabilities Study Sample

Grade 10 Students with Disabilities	Cohort 2009- 2010 Students with Disabilities MEP	Cohort 2010- 2011 Students with Disabilities Stanford 10	
Reading Mean Scaled Score	13.59	NCE Mean Score	27.55
Reading percent Falls Far Below	7		Not applicable
Reading percent Approaches	13		Not applicable
Reading percent Meets	7		Not applicable
Reading percent Exceeds	0		Not applicable
Total	27		43

Note: Stanford 10 examination does not use the FAME scale for students' level of performance.

Table 12 shows scaled score and performance levels for post-test, or AIMS examination of two cohorts of 10<sup>th</sup> grade Students with Disabilities in school years 2009-2010 and 2010-2011 of the study sample (Tucson Unified School District, n.d.g).

Table 12

AIMS Scores of 2009-2010 and 2010-2011 Students with Disabilities Study Sample

Grade 10 Students with Disabilities	2009-2010	2010-2011
Reading Mean Scaled Score	Not available	Not available
Reading percent Falls Far Below	33.33	15.69
Reading percent Approaches	52.38	47.06
Reading percent Meets	14.29	35.29
Reading percent Exceeds	0	1.96
Total	42	51

## **Data Analysis Results**

The purpose of the current quantitative, retrospective, quasi-experimental nonequivalent control group study was to identify differences in achievement between students taught with reading literacy plan strategies and students taught through traditional methods. This study was designed to measure differences in pre-test and post-test scores of the general population at an urban high school in a large school district. Pre-tests and post-tests included students and subgroups of students.

The first step in data analysis was to select data for pre-test and post-test scores of school years 2009-2010 and 2010-2011 cohorts. Next, a one-tailed *t*-test was performed on pre-test and post-test scores of cohort 2009-2010 to show differences between pre-

and post-test scores. Another one-tailed *t*-test was then performed on pre-test and post-test scores of cohort 2010-2011 to show differences between pre- and post-test scores. Finally, a *t*-test was to be performed to show differences between two cohorts. The procedure was to be replicated for the remaining hypotheses.

However, measuring and comparing data with missing and incongruent scores between pre-tests and post-tests resulted in data analyses statistically inaccurate. For example, the *zero* mean scaled reading score for the 2009-2010 cohort did not exist, and accuracy of data analysis for the 2009-2010 cohort was not possible. Further, upon collection of 2010-2011 pre-test data for the purpose of this study, it was discovered data were not appropriately collected, compiled, or disseminated.

The best estimator of pre-test scores for the 2010-2011 cohort, therefore, was Stanford 10. Stanford 10 is a norm-referenced state mandated assessment administered to students in grades 2-9 in reading, Language Arts and mathematics, for which performance is reported as a percentile rank or *Normal Curve Equivalent* [NCE] (Tucson Unified School District, n.d.e). Stanford 10 examination scores became the only alternative pre-test measurement used for the 2010-2011 cohort.

Stanford 10 is a norm-referenced examination, whereas AIMS is a criterion-referenced examination; each method of scoring is distinct. Scoring methods between cohort's pre-test and post-test scores were incongruent, where different scoring measurement systems were used, yielding statistically inaccurate data results. Regarding the ELL component of cohorts, pre-test scores were also incongruent, and reading mean scores were not available for the post-test, resulting in statistically inaccurate data

analysis. The same discrepancies existed with Student's with Disabilities component of cohorts, resulting in statistically inaccurate data analysis.

Although the study was designed to measure differences in pre-test and post-test scores of the general population at an urban high school in a large school district, whereby pre-tests and post-tests included students and subgroups of students, English Language Learners and Students with Disabilities, given inconsistencies of data and examination measurements, an accurate data analyses was impossible. Statistical validity of this study was compromised when data analyses resulted in examination of incongruent examinations and scoring methods, with data yielding inaccurate statistics. Black (1999) posited if research is to enhance internal and external validity of a study, only contributing variables are used, and testing populations and situations indicated by research theory is achieved by controlling unwanted variables. The acceptable change in this study was possible with consistency and congruency of data analysis and standard scoring system of the post-test, or AIMS, scores of the 2009-2010 and 2010-2011 cohorts. Examination of data showed congruency between examinations and scoring methods of post-tests, or AIMS, for both cohorts, ensuring the study's internal and external validity, as well as statistical validity.

Therefore, the appropriate overarching research question, which fundamentally supports this study, became:

RQ: What is the degree of difference between the high-stakes examination scores of the cohort of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the cohort of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

The appropriate hypothesis, therefore, became:

H<sub>0</sub>1: There is no difference in the reading high-stakes examination scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to reading high-stakes examination scores of the cohort of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>A</sub>1: There is a difference in the reading high-stakes examination scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to reading high-stakes examination scores of the cohort of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

The first step in data analysis to test hypothesis results was to select only high-stakes examination, or AIMS, Reading scores, for the 2009-2010 and the 2010-2011 10<sup>th</sup> grade cohort's population samples. Next, 10<sup>th</sup> grade cohort 2009-2010 was defined as control group, those who received regular instruction without strategies of the school-wide reading literacy plan. Finally, 10<sup>th</sup> grade cohort 2010-2011 was defined as treatment group, those who received enhanced instruction using strategies of the school-wide reading literacy plan.

#### **Score differences**

Descriptive statistics were calculated for each set of scores of the reading portion of AIMS. In statistical analysis procedures, discarding outliers, or data that do not follow the usual pattern, is permissible, to obtain results closer to an accurate data analysis (Barrio & Matran, 2013). A significant outlier within data of this study were multi-racial

ethnic subgroup data, which was discarded because the outlier skewed data by placing a value of *zero* to the treatment group cohort, when the control group cohort included only one multiracial student. Eliminating multiracial data was not a factor in results.

Examination of reading mean scaled scores indicated a control group mean of 703.2000, with a standard deviation of 25.68463, and a range of 66.00 (see Table 13). The treatment group had a mean of 696.0000, with a standard deviation of 20.76054, and a range of 51.00 (see Table 14). Figure 1 illustrates differences between group scores.

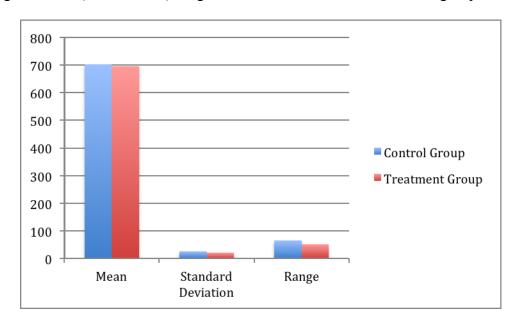


Figure 1. Bar graph: comparison of AIMS scores by study groups (cohorts).

Table 13

Descriptive Statistics: Control Group

Control Group		Statistic
		Statistic
(Cohort 2009-2010)		
Control Group Scaled	N	5
Scores		
	Range	66.00
	Minimum	674.00
	Maximum	740.00
	Mean	703.2000
	Mean Standard Error	11.48651
	Standard Deviation	25.68463
	Variance	659.700
	Skewness	.608
	Skewness Standard Error	.913
	Kurtosis	440
	Kurtosis Standard Error	2.000

Table 14

Descriptive Statistics: Treatment Group

Treatment Group		Statistic
(Cohort 2010-2011)		
Treatment Group Scaled	N	5
Scores		
	Range	51.00
	Minimum	681.00
	Maximum	732.00
	Mean	696.0000
	Mean Standard Error	9.28440
	Standard Deviation	20.76054
	Variance	431.000
	Skewness	1.906
	Skewness Standard Error	.913
	Kurtosis	3.840
	Kurtosis Standard Error	2.000

# Population sample's differences

Statistical analyses were used to measure differences between the population's samples. Results of a study can be generalizable, and results generalized from samples to populations can be meaningful in that they can be applied to populations outside of the original study population (Salkind, 2003). An accepted method of generalizability for

this study, therefore, includes samples of a population. Based on data available from state and school district's databases, samples from control group and treatment groups were derived. Samples were random and generated by number randomization software. Descriptive statistics were calculated for scores of the reading portion of AIMS for samples of the population. Examination of scores between cohorts was determined by conducting a two-sample *t*-test on samples of the population. For this study, the sample size of 30 was adequate and was used as inferential statistics, an appropriate measure to estimate the population's characteristics.

Examination of AIMS reading scores indicated a control group sample mean of 708.43333, with a standard deviation of 20.32102, and a variance of 412.94368. The treatment group had a mean of 685.26667, with a standard deviation of 22.99165, and a variance of 528.61609 (see Table 15). Figure 2 illustrates differences in sample group scores. For generalization purposes, a population's sample can be applied to results (Salkind, 2003).

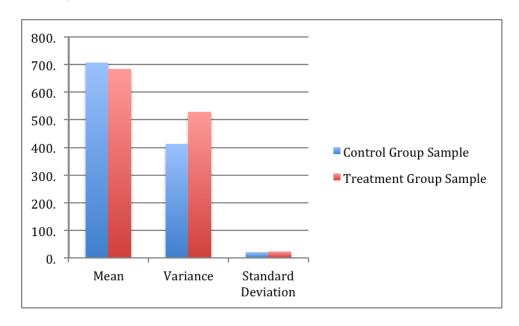


Figure 2. Bar graph comparison of AIMS scores by samples.

Table 15

Descriptive Statistics: Sample Groups

	Control Group	Treatment Group
N	30	30
Minimum	671	652
Maximum	753	730
Mean	708.433	685.27
Standard Deviation	20.32102	22.99165
Variance	412.94368	528.61609
Mean Standard Error	3.71009	4.19768

## **Results of Hypothesis Testing**

This study sought to measure differences in high-stakes examination reading scores of students who received regular instruction and those who received enhanced instruction. The appropriate overarching research question and hypothesis guiding this study were:

RQ: What is the degree of difference between the high-stakes examination scores of the cohort of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the cohort of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

H<sub>0</sub>1: There is no difference in the reading high-stakes examination scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to reading high-stakes examination scores of the cohort

of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

Hal: There is a difference in the reading high-stakes examination scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to reading high-stakes examination scores of the cohort of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

## **Hypothesis results**

The first step in analysis to test the hypothesis was to select a sample of the population from each cohort for each group. The 10<sup>th</sup> grade cohort 2009-2010 was defined as control group, those who received regular instruction without strategies of the school-wide reading literacy plan. The 10<sup>th</sup> grade cohort 2010-2011 was defined as treatment group, those who received enhanced instruction using strategies of the school-wide reading literacy plan. Sample size from the cohort's population was 60, a total of 30 for the control group and 30 for the treatment group.

Examination of scores between cohorts was determined by two-sample one-tailed *t*-test on samples of the population, thus testing the hypothesis and meeting the assumption of the *t*-test. According to Purdue University (2013), "A two sample *t*-test assumes there is one continuous dependent variable and a categorical independent variable (with 2 levels), the two samples are independent, and the two samples follow a normal distribution..." (para.3). With data analysis, inferential statistics are valuable to generalizability because according to statistics collected on samples, inferences will be made about performances of the population (Black, 1999).

Results of the two-sample *t*-test, which compared means assuming unequal variances between two groups, yielded the following: At 1%, or .01 level of significance, results of the two-sample *t*-test indicated p=0.00006 (p<.01), critical value: 2.39357, test statistic: 4.13518, with 57 degrees of freedom, and standard error of difference of 5.60226. Descriptive statistics were also indicators which paralleled results of the two-sample, one-tailed *t*-test, showing differences in mean value, standard deviation, and variance, indicating a significant statistical difference on the reading portion of AIMS between the control group (cohort 2009-2010), and the treatment group (cohort 2010-2011). Findings do not support the goal of the school-wide reading literacy plan. Data analysis results on differences between the control group and treatment group were significant indicators to reject the null hypothesis.

Results of hypothesis testing do not lead to certainty, yet might assist in evaluating implementation of a reading literacy plan program. A difference in high-stakes examination scores exists between cohorts whereby the school-wide, interdisciplinary reading literacy plan does not appear to have had a beneficial effect on students' AIMS reading scores. Therefore, findings support the alternative hypothesis.

The school-wide reading literacy plan was initiated as a result of the high school's scores from AIMS from school year 2009-2010. As a means of intervention, areas of improvement were focused on reading components and strands including vocabulary and comprehension strategies, elements of literature, and expository text. Instruction incorporated vocabulary strategies including the 12 powerful words, which are words identified as most difficult for students to comprehend in high-stakes examinations, as well as the UNRAAVEL reading strategy (Bell, 2005). UNRAAVEL is an acronym for a

reading strategy that can assist students' reading comprehension, particularly on standardized tests (Park Hill School District, 2014).

The school-wide, interdisciplinary reading literacy plan was not effective in raising students' scores on the high-stakes examination, whereby the control group performed better on the high-stakes examination than did the treatment group. The hypothesis stated there is a difference in reading high-stakes examination scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to high-stakes examination scores of the cohort of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan. Therefore, the null hypothesis was rejected.

### Summary

The purpose of this quantitative, retrospective, quasi-experimental static group comparison study was to identify differences in achievement between students taught with reading literacy plan strategies and students taught through traditional methods. This study included use of a school-wide reading literacy plan implemented by high school teachers to raise literacy rates of high school students, thus high-stakes examination scores. This study examined high-stakes examination scores between two cohorts of 10<sup>th</sup> grade students with and without enhanced instruction of a reading literacy plan. Two cohorts consisted of a control group comprised of 307 students and a treatment group comprised of 434 students. Scores were analyzed statistically to evaluate differences in academic achievement between both cohorts.

Upon collection of 2010-2011 data for the purpose of this study, it was discovered data were not appropriately collected, compiled, or disseminated. The alternative choice

was to use different pre-tests, yet pre-test scores were measured through different scoring measurement systems, resulting in findings that were statistically inaccurate.

Consequently, the best option was to not include the pre-test scores and to include only cohorts' post-test scores, for which the scoring measurement system was identical. As a result of the necessary change, the research design justifiably changed from a nonequivalent control group to a static group comparison, the research questions were replaced by one overarching research question, and a respective hypothesis was applied for which data was statistically accurate. The statistical measure became the two-sample

one-tailed t-test; ANOVA measure to test the hypothesis became irrelevant with the new

research design.

Data analysis focused on differences in scores, and determined if a significant difference existed in high-stakes examination scores of the control group and treatment group. Based on the hypothesis, data analysis indicated statistically significant differences between control and treatment groups, rejecting the null hypothesis. Based on findings of this study, the school-wide interdisciplinary reading literacy plan did not show significant effectiveness on raising literacy rates of students in a Title I school located in a low socio-economic community, where students' high-stakes examination reading scores are below proficiency rates.

Chapter 5 presents conclusions made possible by findings in this study. Chapter 5 includes limitations, recommendations for educational leadership, and suggestions for further research. Chapter 5 closes with a summary.

#### CHAPTER 5

#### CONCLUSION AND RECOMMENDATIONS

The purpose of this quantitative, retrospective, quasi-experimental static group comparison study was to identify differences in achievement between students taught with reading literacy plan strategies and students taught through traditional methods. This study included use of a school-wide reading literacy plan implemented by school leadership through high school teachers to raise literacy rates of high school students, thus high-stakes examination scores. This study examined high-stakes examination scores between two cohorts of 10<sup>th</sup> grade students with and without enhanced instruction of the reading literacy plan. Two cohorts consisted of a control group comprised of 307 students and a treatment group comprised of 434 students. This study was possible by analyzing high-stakes examination scores of both cohorts. Scores were analyzed statistically to evaluate differences in academic achievement between both cohorts. Statistical analysis of data was used to evaluate and determine the answer to the research question.

### **Research Question**

What is the degree of difference between the high-stakes examination scores of the cohort of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the cohort of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

Chapter 5 begins with findings of data analyses of this study and with conclusions relevant to the research question. Chapter 5 proceeds with research findings relative to

literature review, study's limitations, and concludes with suggestions for further research, particularly regarding recommendations for educational leaders.

### **Summary of Study Findings**

Intervention strategies designed to raise literacy rates in Title I schools have become a way to raise high-stakes examination scores. Since the inception of NCLB, schools have been categorized and measured through high-stakes examination scores, thus the increasing emergence of instructional intervention programs and strategies. Framed by theory of intervention strategies for underperforming students, the school-wide reading literacy plan was implemented with foci on reading components including vocabulary and comprehension strategies, elements of literature, and expository text. Instruction incorporated vocabulary strategies including 12 powerful words, which are words identified as most difficult for students to comprehend in high-stakes examinations, as well as UNRAAVEL, which assists students' comprehension, particularly on standardized tests (Bell, 2005; Park Hill School District, 2014).

The school-wide, interdisciplinary reading literacy plan's basic theory paralleled components of Dewey's educational theory, whereby learning is student-focused, learning experiences engage students, challenged by opposition, and teaching and learning are acquired under pressure (Dewey, 1938). Components of theories framing this study's were applied in ZMHS's school-wide, interdisciplinary reading literacy plan. The UNRAAVEL reading strategy included components of the reader response theory, which evolved from literary tradition of reading theorists such as Louise Rosenblatt. Jean Piaget's cognitive theory of development was inevitably part of instructional strategies, whereby new learning referred to availability of prerequisite capabilities and included

lower skills and essential rules, concepts, and part-skills in procedures (Gredler, 2009). The reading literacy strategies included teaching basics of reading strands and components before advancing instruction. As an intervention strategy, the theory of Rigor/Relevance Framework constituted rigor, relevance, and respectful relationships using Bloom's taxonomy, from the lowest level of simple recall or recognition of facts to evaluation, in several aspects of the literacy plan, including 12 Powerful Words (Bloom, 1956).

Although Louise Rosenblatt, Jean Piaget, and Rigor/Relevance framework theories encompassed components of Dewey's educational theory, the school-wide, interdisciplinary reading literacy plan was ineffective as a curricular intervention at the particular high school in this study. Implications regarding this study's findings include consideration regarding the problem might have been better understood by other theoretical frameworks, such as Maslow's Hierarchy of Needs by Abraham Maslow. Further, alternative interpretations of this study's findings include the problem was related to resistance to change, lack of a change theory as part of the literacy plan, and change in pedagogy not planned well.

Another interpretation to this study's findings is the novelty effect. The novelty or disruption effect is a threat to the external validity of this study because results may be attributed to new or unusual experiences or circumstances generated by the intervention treatment (Bracht & Glass, 1968). Results of this study might have had more to do with the uniqueness of the school-wide, interdisciplinary reading literacy plan rather than actual instructional strategies to assist students with reading achievement.

Based on findings of research-based claims for raising student literacy rates, underperforming schools have successfully improved students' academic achievement with implementation of literacy plans (Fisher & Frey, 2007). This study sought to address effectiveness of implementation of an interdisciplinary school-wide reading literacy plan in a predominantly Hispanic Title I high school, through differences in pretest and post-test scores between two successive 10<sup>th</sup> grade cohorts. However, after data analysis according to original research questions and hypotheses, results were inconclusive. This study's original research questions and hypotheses were:

RQ1: What is the degree of difference between the pre-test and post-test scores of the cohort of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the cohort of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

RQ2: What is the degree of difference between the pre-test and post-test scores of the English Language Learner subgroup of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the English Language Learner subgroup of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

RQ3: What is the degree of difference between the pre-test and post-test scores of the Students with Disabilities subgroup of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the Student with Disabilities subgroup of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

H<sub>0</sub>1: There is no difference in the reading pre-test and post-test scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the cohort of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>A</sub>1: There is a difference in the reading pre-test and post-test scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the cohort of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>0</sub>2: There is no difference in the reading pre-test and post-test scores of the English Language Learner subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the English Language Learner subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>A</sub>2: There is a difference in the reading pre-test and post-test scores of the English Language Learner subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the English Language Learner subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>0</sub>3: There is no difference in the reading pre-test and post-test scores of the Students with Disabilities subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test

scores of the Students with Disabilities subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

H<sub>A</sub>3: There is a difference in the reading pre-test and post-test scores of the Students with Disabilities subgroup of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to the pre-test and post-test scores of the Students with Disabilities subgroup of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

The study was designed to measure differences in pre-test and post-test scores of the general population at an urban high school in a large school district. Pre-tests and post-tests included students and subgroups of students. This study included research on examination scores of two cohorts, for which scores of English Language Learners and Students with Disabilities were included. However, data analyses resulted in examination of incongruent examination instruments and scoring methods, and consequently data yielding inaccurate statistics, with the exception of the post-test, or AIMS, scores of the 2009-2010 and 2010-2011 cohorts. Examination of post-test scores of both cohorts' data showed congruency between examinations and scoring methods.

As a result of the incongruent examination instruments and scoring methods yielding incongruent, thus inaccurate statistics for this study, a change in hypothesis was crucial to this study's validity. Black (1999) stated changing hypothesis is justifiable when necessary because "carefully defining concepts and consequential constructs helps to eliminate ambiguity and establishes a basis for ensuring construct validity and reliable operational definitions of the variables" (p. 57). The change in hypothesis eliminated the use of pre-test scores and included only the high-stakes examination scores, which

additionally changed the study's design from nonequivalent control group to static group comparison. Therefore, the appropriate overarching research question which fundamentally supported this study, as well as the appropriate hypotheses, became:

RQ: What is the degree of difference between the high-stakes examination scores of the cohort of students who received regular instruction without the strategies of the school-wide reading literacy plan, and the cohort of students who received enhanced instruction using strategies of the school-wide reading literacy plan?

H<sub>0</sub>1: There is no difference in the reading high-stakes examination scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to reading high-stakes examination scores of the cohort of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

Hal: There is a difference in the reading high-stakes examination scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to reading high-stakes examination scores of the cohort of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

The research hypothesis predicted there would be a significant difference in high-stakes examination (AIMS) scores between the control group and the treatment group, when controlling instructional strategies for the treatment group. Quantitative data analyses were used to determine differences in reading achievement between AIMS Reading scores of two successive cohorts of 10<sup>th</sup> grade students. Cohort from school year 2009-2010 was defined as the control group, those who received regular instruction

without strategies of the school-wide reading literacy plan. Cohort from school year 2010-2011 was defined as the treatment group, those who received enhanced instruction using strategies of the school-wide reading literacy plan.

Examination of data analyses revealed there was a significant difference between high-stakes examination (AIMS) scores of the control group and high stakes examination (AIMS) scores of the treatment group. Results of the two sample one-tailed *t*-test indicated implementation of the school-wide interdisciplinary literacy plan was ineffective in raising reading literacy rates of 10<sup>th</sup> grade, predominantly ethnic minority students in a Title I high school. Statistical analyses results from this study's data indicated the control group outperformed the treatment group. Comparing examination score means with a two sample one-tailed *t*-test assuming unequal variances, the mean score for the control group sample was 708.433, whereas the treatment group sample mean score was 685.27. Therefore, the null hypothesis was rejected.

Conclusions of the study based on rejecting the null hypothesis may include several possibilities, one of which is the school-wide reading literacy plan did not yield desired effects on student reading literacy rates on high-stakes examination scores.

Conclusions based on rejecting the null hypothesis support the alternative hypothesis, which predicted a difference between examination scores of two cohorts in this study.

The hypothesis for this study was:

H<sub>A</sub>1: There is a difference in the reading high-stakes examination scores of the cohort of students who received enhanced instruction using strategies in a school-wide reading literacy plan, compared to reading high-stakes examination scores of the cohort

of students who did not receive enhanced instruction using strategies in a school-wide reading literacy plan.

# **Study Findings Relative to Literature Review**

Literature review framed this study and provided a rationale for the concept of increasing reading achievement with implementation of school-wide literacy plans.

Literature review also included significant research on reading and NCLB, with support of implementation of literacy plans in schools nationwide. Review of literature indicated formulation of school-wide literacy plans might be an essential blueprint for improving student achievement in Title I schools (Irvin et al., 2007). Findings of this study, with its focus on 10<sup>th</sup> graders in a Title I, predominantly ethnic minority population, contradict positive results in published literature. Findings of this study, conceptualized into literature review, prompts scholarly dialogue of the effects of implementing reading literacy plans for predominantly minority student populations in Title I schools.

In the 1950s, the launch of Sputnik influenced federal involvement in curriculum, and by 1965, President Johnson's Elementary and Secondary Education Act of 1965 (ESEA) was an attempt at funding schools to help disadvantaged students (Preskill & Russ-Eft, 2005; Steeves et al., 2009). Efforts to reform education systems continued, and the 1983 publication of the report A Nation at Risk: The Imperative for Educational Reform, with the standards movement at the core, legitimized state and local efforts to reform education systems; by 1994, President Bush's Goals 2000: Educate America Act of 1994 targeted improvement of student performance in specific subject areas (Hunt, 2008; McIntush, 2000). ESEA has had successive reauthorizations, including the most recent, No Child Left Behind Act (NCLB) of 2001, which promotes use of findings from

scientifically based research with students' problematic reading performance, and has refocused the goal of closing academic achievement gaps between disadvantaged and minority students and their counterparts (Gersten & Hitchcock, 2009; Preskill & Russ-Eft, 2005).

Since 2002, academic achievement measures were not met, at a rate of 37% of schools nationwide failing to make passing grades, and by 2011, 80% of schools were estimated to not have met targets mandated by NCLB (The White House, 2011c).

Results of demographic data demonstrate how disadvantages of NCLB mandates have affected students of ethnic minority backgrounds, as evidenced by the amount of Title I schools in low socio economic communities with high percentages of ethnic minorities, English language learners, and students with disabilities, who are over-represented in the low-achieving category (NAEP, 2012; Patel, 2010). As a result of schools not meeting NCLB mandates, in 2011 the Obama administration proposed A Blueprint for Reform: The Reauthorization of the Elementary and Secondary Education Act, and released the ESEA flexibility package relieving states from some NCLB provisions.

The school-wide, interdisciplinary reading literacy plan in this study was created to conform to the concept of accountability by means of student achievement. To meet NCLB goals of 100% proficiency in state standards, make adequate yearly progress (AYP), and improve students' reading scores on AIMS, the high school in this study, ZMHS (pseudonym) implemented a school-wide reading literacy plan in school year 2010-2011. The high school's school-wide literacy plan was entitled 301-Site Plan. Results of cohort's 2010-2011 spring high-stakes examination scores were required to meet the goal set by the high school and approved by the school district. Language of the

goal met compliance with state and national accountability measures. The accountability plan for ZMHS during school year 2010-2011aligning with NCLB was the 301-Site Plan.

Efforts to raise student achievement to meet mandates, standards, and accountability measures were clearly evident within the literature review. Ways to raise literacy rates in schools' key disadvantaged populations included literacy plans with specific instructional strategies to promote academic achievement. Literacy plans consisted of instructional changes and pedagogy aligned with literacy achievement. Despite reading interventions, pedagogies on best practices, and reading programs, only one-third of the nation's fourth- and eighth-graders read at or above proficient achievement level (NAEP, 2012). The trend followed high school readers.

Encouraging higher proficient reading achievement through literacy plans became an educational goal, with underperforming schools adopting reforms to raise reading proficiency levels. Interventions to improve reading proficiency were evidenced by implementations of numerous literacy plans nationwide. Funding for literacy plans have been as notable as \$200 million nationwide, as was such in 2011when funds were awarded to State Educational Agencies to develop comprehensive literacy plans for students reading below grade level, to include learners through Grade 12 (U.S. Department of Education, 2012b). Successful national state literacy plan initiatives supported state literacy plans, which supported district and school literacy plans, particularly for Title I schools where the majority of students are ethnic minority, qualify for free or reduced-price lunch, include English language learners, and students with disabilities.

Consistent with demographics of a Title I school, the high school in this study, ZMHS (pseudonym), consisted of over 95% ethnic minority students of whom over 80% qualified for free or reduced-priced lunch, over 47% spoke a language other than English at home, and most students resided within a low socio economic community. AIMS Reading data results from the previous academic school year showed ZMHS students read below proficient achievement level. Data were evidence of the need to augment instructional practices and pedagogy to address students' reading deficiencies and increase students' reading achievement. ZMHS was an underperforming school, labeled in need of improvement in the reading portion of the high-stakes examination. Literature states educational leaders and teachers must view literacy critically and adopt reforms supported by scientifically-based research, creating and implementing various literacy approaches to attain improvement (Fleischman & Heppen, 2009; Gomez, 2005).

Based on research findings on literacy plans, ZMHS educational leaders and teachers embarked on a mission to raise student reading literacy rates through implementation of a school-wide interdisciplinary reading literacy plan. Instructional content and pedagogy became an intense part of the literacy plan's goal to close academic achievement gaps inherent to disadvantaged students. With a limited timeframe from which to implement the school-wide literacy plan, teachers acquired basic skills in creating assessments addressing reading literacy lessons through collaborative department meetings and personal teacher instructional planning. However, professional development was limited for teachers to prepare lessons incorporating vocabulary and comprehension strategies, elements of literature, and expository text, and to create assessments slated for data collection. Additional resources were not allocated to general

teacher population for training in preparation of the policy-driven school-wide interdisciplinary reading literacy plan.

While similar student demographics in successful school-wide reading literacy plans in other schools might suggest the same reading literacy intervention outcomes for the high school in the current study, findings of this study show results to the contrary. Literature review revealed consistency with challenges associated with reading achievement and Title I school demographics, whereby predominantly minority student populations of low socio-economic status struggle or fail in academic tasks (Sinatra, 2008). Examination of data in this study also revealed study findings do not align with researched literature; the treatment group did not outperform the control group as a result of the school-wide interdisciplinary reading literacy plan.

#### Limitations

Limitations include identifying a study's weaknesses, restrictive factors, and alternative explanations (Leedy & Omrod, 2010; Neuman, 2006). This study included three major limitations. The first limitation was the quasi-experimental static group comparison design. This study employed intact groups (10<sup>th</sup> grade students in cohorts), and samples were not completely random (assigning students to groups was impossible). Cohort groups were not equivalent, and when groups are not equivalent, individual traits can influence outcomes. With the quasi-experimental static group comparison, a pre-test does not exist, and results of the difference in scores between groups after the literacy plan might have been the result of differences that existed before the literacy plan.

The second limitation was generalizability. While the study compared two different groups with similar student demographics under two different conditions, it did

not include a comparison group from a different high school. Therefore, conclusions about the reading literacy plan's effectiveness do not allow for findings regarding closing achievement gaps between 10<sup>th</sup> grade students at other Title I high schools.

Interpretations of results will be limited to test scores from the reading section of the AIMS examination of one high school, decreasing generalizability because of exclusion of student test scores from the reading section of AIMS from other high schools or districts. Generalizability is limited most to Title I school demographics with similar racial, ethnic and socio-economic populations.

The third limitation was school leadership. Witte et al. (2010) noted certain attributes or characteristics are vital in sustaining a school-wide literacy plan through transitions in leadership and continuous evolution. The attributes, or characteristics, include maintaining the vision, expanding leadership capacity, and providing opportunities for stakeholders to give feedback. The school-wide, interdisciplinary reading literacy plan was an attempt by school leadership to meet accountability demands by raising reading literacy rates in 10<sup>th</sup> grade students on the high-stakes examination. However, limited professional development for teachers, lack of teacher buy-in, and a rushed effort to implement the policy-driven, school-wide interdisciplinary reading literacy plan were culprits of the plan's success.

The school-wide, interdisciplinary reading literacy plan's success was threatened with transition of leadership from school year 2009-2010 to 2010-2011. The school's new administrators hastily implemented the literacy effort. Although expansion of leadership capacity was encouraged, limited leadership distribution was the reality. Professional learning community teacher meetings were minimal during the school year,

with approximately one, one-hour meeting scheduled every quarter of the school year.

Training for teachers on implementing lessons and creating assessments to raise reading literacy was insufficient.

The 301 Site Plan for 2010-2011 (later known as the school-wide, interdisciplinary reading literacy plan), had been approved in the spring of school year 2009-2010, yet means by which the high school would meet goals of the 301 Site Plan were not discussed with clarity necessary for teachers to anticipate implementation. The school-wide, interdisciplinary reading literacy plan was announced to faculty at the beginning of the 2010-2011 school year as a mandate for faculty to implement and meet the school's accountability goals; goals which aligned to district, state, and NCLB accountability measures. The majority of teachers lacked training to implement lessons incorporating reading literacy. Teachers demonstrated frustration with the reading literacy plan, creating lessons and assessments that might not have been conducive to student learning in the realm of reading literacy; thus, possibly submitting data not reflective of reading instruction beneficial to students' reading literacy rates. Teachers' feedback, as stakeholders, was not considered pertinent, and evidence was clear of literacy plan implementation with or without teacher feedback or approval.

Limitations of this study should be addressed in future research studies to eliminate factors of literacy plans that are ineffective as a means of intervention in schools, particularly Title I schools.

#### **Recommendations for Educational Leaders**

Raising reading literacy rates in Title I high school requires more than preparing students for high-stakes examinations to meet accountability demands. Raising reading

literacy rates in Title I high schools requires creating a strong reading culture fostering positive academic progress and student achievement. A sustainable literacy plan includes key attributes, such as maintaining a collective vision, expanding leadership capacity, providing an opportunity for stakeholders to give feedback, strengthening an already strong foundation of strategies with successful research-based additional instructional strategies, and supplying resources needed for stakeholders to implement strategies successfully (Witte et al., 2010). Findings from this study are meant to contribute to information on literature regarding school-wide reading literacy plans from which educational leaders in Title I schools can obtain recommendations for increased student academic achievement.

Schools leaders may use results of this study to make informed decisions about professional development and pedagogical practices regarding curricular interventions for underperforming students. Professional development is critical to success of a school-wide literacy plan, yet professional development was among the weakest components of the school-wide, interdisciplinary reading literacy plan analyzed in this study. Results from this study parallel literature on negative aspects of professional development.

Schneider (2014) stated professional development tends to be infrequent and too general, and school leadership must find more time during the school day for teachers to collaborate and work with experts. Educational leaders responsible for budgetary decision-making for curriculum may use results of this study to explore funding for teacher and administrator professional development and training on instructional reading strategies for a school-wide literacy plan.

The literature review described projects of successful national, state, and local school-wide literacy plans, most of which were funded to assist underperforming students under accountability measures. Standardized accountability testing might be inevitable, yet accountability measures might be set at the local level, and then upward, with professional development expanding to coaching and mentoring programs and partnerships with colleges and universities (Schneider, 2014). Maintaining equity in education for underperforming students might begin with school leaders who recognize student needs are individual and particular to the community.

School leaders, particularly Title I school leaders, might consider combining multi-faceted features of accountability as a guide to successful pedagogical practices that intensifies students' academic success. Literature from this study suggested NCLB accountability mandates and measures continue into present times, yet teacher instructional creativity might be stifled as a result of NCLB mandates. Educational leaders such as superintendents and curriculum specialists might consider pedagogical and instructional practices that go beyond constrained high-stakes examination content, and incorporate other subjects into student learning so students are not only preparing for high-stakes accountability measures, but also for college- and career-readiness according to Arizona College and Career Standards.

Educational leaders, such as school principals, curriculum specialists, and teachers, may use results of this study to explore a bottom-up accountability system, whereby teachers are among the first to make accountability decisions regarding a school-wide literacy plan because research shows teachers use literacy planning to meet instructional and academic needs of diverse students (Kersten & Pardo, 2007). A

bottom-up accountability system may be advantageous over a top-down approach, which may not support diversity or differentiated instruction (Heilig, n.d.). Frequent and consistent professional development is an ideal platform for discussing bottom-up goals including stakeholders' contributions and feedback regarding a school-wide, interdisciplinary reading literacy plan for underperforming students.

Implementation of a school-wide literacy plan as a curricular intervention necessitates strategic leadership about organizational structure. Educational leaders can gain information from this study about developing and implementing a school-wide reading intervention model by fostering a positive school culture, which can drive best practices in instruction, thus student achievement. A collaborative school culture encourages shared values and implementation of goals, whereas an unhealthy school culture's focus is short-term, moral is low, and goals are inconsistent (Gümüşeli & Eryilmaz, 2011). Gümüşeli and Eryilmaz stated a positive school culture includes professional development for teachers and principals, which results in building collective and collaborative relationships.

Findings from this study might be significant to superintendents and school administrations regarding ESEA Blueprint for Reform's goals as part of a school-wide literacy plan, particularly the goal of funding student successes by investing in new models. Title I school leaders might seek curricular interventions that will close reading achievement gaps between Title I students and their counterparts by considering a reading intervention model such as reading literacy plans included in this study. Educational leaders may consider implementation of the school-wide, interdisciplinary reading literacy plan similar to the one from this study, with improvements that include a

change model to allow for the plan's growth and sustainability. Additionally, a theoretical framework such as Maslow's Hierarchy of Needs might be a consideration and might cover multiple aspects of the theoretical framework in this study.

From results of this study, educational leaders need to investigate benefits of support staff, such as designated data collectors and reading teachers or reading specialists. Including such positions as part of school-wide reading literacy plans may be highly beneficial for proper literacy lesson planning support to teachers, and proper data collection and dissemination as means of the plan's quality control. Of significance to educational leaders is accurate data that is quantifiable regarding a common scoring system of measurement for pre- and post-tests for the purpose of comparing differences in student achievement for accurate data-driven decisions.

Although research of literature showed positive results for other school-wide literacy plans in Title I underperforming large urban schools and districts, negative findings of this study show school leaders must implement a school-wide, interdisciplinary reading literacy plan which includes sound pedagogical practices, relevant professional development, and shared leadership as an impactful strategic plan to foster a culture of reading literacy. Findings of this study are meant to contribute to knowledge of school-wide reading literacy plans from which educational leaders, particularly in Title I schools, can gain understanding and prevent difficulties associated with implementation of school-wide, interdisciplinary literacy plans that yield negative results.

#### Summary

The expectation that all students be 100% proficient in reading and mathematics by school year 2013-2014 and schools make adequate yearly progress (AYP) as measured by student high-stakes examination scores, was a NCLB mandate that has placed accountability demands which high schools, particularly Title I high schools, have not met. Although flexibility waivers of specific provisions of NCLB have relieved some states of the most notable mandate of the 2013-2014 timeline for achieving 100% student proficiency in state standards by 2013-2014, the extended date of NCLB goal of 100% proficiency is school year 2020 (Arizona Department of Education, 2012f). Interventions, such as school-wide reading literacy plans, have raised reading literacy in underprivileged students underperforming schools across the nation, raising school's letter grade determinations, as well as achieving adequate yearly progress.

The goal of this study was to contribute to literature on school-wide interdisciplinary reading literacy plans as a curricular intervention in Title I high schools. The study's focus was on literacy plans with reading strategies and pedagogy benefitting underprivileged students in underperforming schools. Reasons for implementation of literacy plans are multi-faceted, and several schools have improved student achievement and met accountability mandates. Several school-wide literacy plans in large underperforming and predominantly minority high schools have been models of student academic success as a result of literacy plan implementation. In contrast, negative findings of this study suggest a school-wide, interdisciplinary reading literacy plan may not be an effective intervention to raise scores of 10<sup>th</sup> grade students in the state's high-stakes examination. Rather, the study suggests students perform better on the state's

high-stakes examination without the intervention of a school-wide interdisciplinary reading literacy plan.

With these findings, this study contributed information to educational leaders and to the body of literature about school-wide, interdisciplinary reading literacy plans.

Building on findings of this study, it is hoped educational leaders view school-wide literacy plans as a goal to transform underperforming schools into highly performing schools, cognizant of improvements necessary for a literacy plan's success. The equation of successful literacy plans includes elements missing from the school-wide interdisciplinary reading literacy plan in this study. Including well-planned elements to a successful literacy plan equation might afford all students the advantage of being literate, college- and career-ready by the 12th grade.

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#### Appendix A

Data Access and Use Permission Form



#### DATA ACCESS AND USE PERMISSION

# (Department of Accountability and Research and Please check mark any of the following statements that you approve regarding the study and data described below: ☐ I hereby authorize Maria Bicknell, a student of University of Phoenix who is conducting a research study titled or described as follows EFFECTS OF A SCHOOL-WIDE READING LITERACY PLAN ON READING SKILLS: A QUASI-EXERIMENTAL STUDY access to, and use of, the non-identifiable archival data described as follows: Benchmark exam scores, State's high-stakes exam (AIMS) scores for school years 2009-10 and 2010-11, for use in the aforementioned research study. In granting this permission, I understand the following (please check mark each of the following as applicable): ☐ The data will be maintained in a secure and confidential manner. ☐ The data may be used in the publication of results from this study. ☐ This research study must have IRB approval at the University of Phoenix before access to the data identified here is provided to Maria Bicknell ☐ Access to, and use of, this data will not be transferred to any other person without my/our express written consent. ☐ The source of the data may be identified in the publication of the results of this study. ☐ Relevant information associated with this data will be available to the dissertation chair, dissertation committee, school as may be needed for educational purposes. Date 7/12/2013 Signature Researcher Signature/Acknowledgement Title Research Project Manager Date Address:

#### Appendix B

Premises, Recruitment and Name (PRN) Use Permission



#### PREMISES, RECRUITMENT AND NAME (PRN) USE PERMISSION

## Name of Facility, Organization, University, Institution, or Association

Please complete the following by check marking any permissions listed here that you approve, and please provide your signature, title, date, and organizational information below. If you have any questions or concerns about this research study, please contact the University of Phoenix Institutional Review Board via email at IRB@phoenix.edu.

I hereby authorize Maria Bicknell, a student of University of Phoenix, to use the
premises (facility identified below) to conduct a study entitled EFFECTS OF A
SCHOOL-WIDE READING LITERACY PLAN ON READING SKILLS: A
QUASI-EXERIMENTAL STUDY
n/a I hereby authorize, a student of University of Phoenix, to recruit
subjects for participation in a conduct a study entitled (insert title of research study or
a brief description of research study).
n/a 🔲 I hereby authorize, a student of University of Phoenix, to use the name
of the facility, organization, university, institution, or association identified above
when publishing results from the study entitled (insert title of research study or a brief
description of research study).
Signature Date
Name
<u>Principal</u>
Title
Address of Facility

#### Appendix C

Premises, Recruitment and Name (PRN) Use Permission



## PREMISES, RECRUITMENT AND NAME (PRN) USE PERMISSION

## Name of Facility, Organization, University, Institution, or Association

Please complete the following by check marking any permissions listed here that you approve, and please provide your signature, title, date, and organizational information below. If you have any questions or concerns about this research study, please contact the University of Phoenix Institutional Review Board via email at IRB@phoenix.edu.

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n/a I hereby authorize, a student of University of Phoenix, to recruit
subjects for participation in a conduct a study entitled (insert title of research study or
a brief description of research study).
n/a I hereby authorize, a student of University of Phoenix, to use the name of
the facility, organization, university, institution, or association identified above when
publishing results from the study entitled (insert title of research study or a brief
description of research study)
Signature Date
Name
Research Project Manager
Title
Address of Facility