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DEPARTMENT OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES

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Dedication

This dissertation is dedicated to all educators who have and who continue to serve the children of America. A free public education is the greatest gift we can give to future generations. Although the attack on public education has never been more intense, we educators have learned to fight. We know what is at stake if we lose the battle. We fight with a love of learning and a desire to create critical thinkers while we maneuver through a sea of "measurable objectives". We fight with knowledge, love, and a passion to make a difference in our world. We fight the ignorance of those who think they know what we do and those who feel they can do it better even though they have never spent one day in a classroom. We fight long hours, scarce resources, and a hurting society. We fight for a solution instead of being part of the problem. In the end, we will make a difference because we fight for learning.

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Abstract

The transition from middle school to high school is a critical stage in the educational development of teenage students. Despite comprehensive education reforms aimed at helping all students graduate high school, many students who struggle academically and socially in middle school continue to fail when they reach high school. National and local initiatives seek to redesign educational programs to help struggling students experience success by supporting them through the challenging academic and social requirements of high school. This research question-driven quasi evaluation investigates the impact one high school intervention program has on incoming freshman students who have experienced a history of school failure. The freshman bridge program known as ESPIN seeks to provide strong supports to help low-performing students maneuver through the academic and social requirements necessary to graduate from high school. The ESPIN intervention program is a theory of planned change that builds upon the idea that a transition program which focuses on relationships and relevance (inputs) though increased time, transition curriculum, leadership training, career exploration, and academic development (throughputs) can achieve a series of quantitative and qualitative goals (outputs) for students entering high school who have had a history of school failure as measured by state testing standards, high occurrences of behavior incidents, and frequent attendance issues. This study provides a description of the ESPIN intervention program along with the methods, findings, and implications of the study.

Chapter 1: Introduction

"It is not necessary to change. Survival is not mandatory." This quote by W. Edwards Deming (Gordon & Crabtree, 2006, p.1) speaks loudly to educators across the nation. Public schools in the U.S. have been externally critiqued throughout their existence. Educators feel the presence of federal and state mandates daily inside schools. Legislation such as the *National Defense Education Act* of 1958, the *Elementary and Secondary Education Act* of 1965, the *War on Poverty* in 1965, the *Coleman Report* in 1966, the *Bilingual Education Act* of 1968, *Title IX* and *Title VII*, the *Rehabilitation Act* of 1973, the *Equal Educational Opportunities Act* of 1974, the *Education of All Handicapped Children Act* (PL 94-142) of 1975, the *Individuals with Disabilities Education Act* (IDEA) in 1990, *No Child Left Behind* in 2002, the *American Reinvestment and Recovery Act* of 2009, the *Race to the Top* initiative, Oklahoma's *ACE* (Academic Classroom Excellence), and Common Core instruction have left districts struggling to both interpret and maintain the twin goals of equity and academic excellence. This fact, along with the practice of comparing schools across the state and nation, has created a continual demand for change among educational institutions. Survival of public education depends on this change.

Many educational mandates have been underfunded and have placed heavy burdens on educators and school districts, but educators have also learned a great deal from the performance indicators utilized in accountability standards. These indicators have highlighted areas where districts need to improve. This has led to focused and strategically targeted instructional practices that can help ensure all students have an opportunity to achieve. Whether accurate or fair, the call for accountability among

public educational institutions has created a climate of change in which educational leaders must develop programs and practices that help all students succeed academically.

Background of Problem

The search for programs that raise student engagement and consequent student achievement, particularly among minority and economically disadvantaged students, has become a high priority among national leaders. In Oklahoma, the *Achieving Classroom Excellence (ACE*) legislation requires that all high school students pass four of seven End-of-Instruction tests (EOIs) before receiving a high school diploma (Oklahoma State Department of Education, 2012). The seven Oklahoma EOI tests include Algebra I, English II, biology, English III, geometry, Algebra II, and U.S. History. These tests are important to individual students, but they are equally important to individual schools and school districts. The results of these tests, along with other performance indicators, are used to calculate a school's report card and profile score. These school A-F Report Card grades are then released to the public as a representation of a school's performance in overall student achievement, student growth, academic growth of students within the bottom quartile of test takers who scored Limited Knowledge (LK) or Unsatisfactory (U), and whole school performance which includes indicators such as attendance and dropout rates (Oklahoma State Department of Education, 2012).

Although many remediation and intervention strategies and programs have targeted reading and math acquisition at the elementary school level (Borman, Hewes, Overman, & Brown, 2003; Howerton & Thomas, 2004; Rouse, 2005), the transition

from middle school to high school continues to surface as a key time in the educational path of adolescents (Allensworth & Easton, 2007; Quint, Miller, Paston, & Cryton, 1999). Research is clear about the difficulty students have when they enter high school (Cooney & Bottoms, 2002; Fulk, 2003; Schemo, 2004;); in fact, researchers have identified ninth grade as "the most critical point to intervene and prevent students from losing motivation, [and from] failing and dropping out of school" (Reents, 2002, p. 14; see also Cooney & Bottoms, 2002; Fulk, 2003). The transition from middle school to high school is often so overwhelming to students that more dropouts occur at the ninth grade level than at any other point in a student's educational career (Black, 2002; Chmelynski, 2004; Neild, Balfanz, & Herzog, 2007). This transition is even more difficult for low-performing students who also struggle to meet the testing requirements required for graduation. At a time when students are faced with their own individual self-perception and self-esteem issues, high school represents new academic challenges.

One third of the nation's students are leaving high school without a diploma (Barton, 2005; Fall & Roberts, 2012; Pharris-Ciurej, Hirschman, & Willhoft, 2012; Seastrom, Hoffman, Chapman, & Stillwell, 2005; Snyder & Dillow, 2011; Stillwell, 2010), and statistics are clear about the fact that dropouts' earnings are significantly lower than those of high school graduates. Nearly half the prison population and half of the heads of households on welfare are made up of high school dropouts (Barton, 2005; Fall & Roberts, 2012). To prevent students from dropping out of school, educators are working to develop programs that meet the educational and social needs of students.

Many of the remediation and intervention programs targeted for raising student achievement have focused on increased academic success without recognizing the

importance of meeting the social and emotional needs of students (Asselin, 2004; Greenburg, Weissberg, O'Brien, Zins, Fredericks, & Resnick, 2003; Werblow & Duesbery, 2009). Meeting these needs may be even more important for economically disadvantaged and minority students who often bring less social and cultural capital to school with them (Alexander, Entwisle, & Olson, 2014; Allensworth, Nami, Montgomery, & Lee, 2009; Kirp, 2011; Putnam, 2015; Rothstein, 2004; Weiss, 2014). For this reason, developing self-efficacy and collective efficacy among students may play a larger role in the success of remediation and intervention programs than what educators have previously considered. The use of targeted groupings to achieve student learning goals, and as a corollary, organizational performance, has become prevalent in many schools and school systems (Calderon, Klein, Fitzgerald, & Berger, 2005; Caldwell, 2007; Childress, Doyle, & Thomas, 2009; Gordon, 1992;), but little research has been completed on the effect of coordinated teacher teams and student group identity in remediation and intervention programs that focus on the cultural and social issues of adolescents.

The significance of programming that attends to the whole child, especially at the secondary level, is an important aspect of supporting student success with a range of valued outcomes of schooling. Educating the whole child moves the focus of education from a narrowly defined set of academic standards to a focus on the long-term development and success of children. This holistic approach extends beyond the academic curriculum and applies to the moral and social aspects of addressing student needs. Soder, Goodlad, and McMannon (as cited in Noddings, 2005) suggest that whole child education would graduate citizens who "exhibit sound character, have a social

conscience, think critically, and are willing to make commitments, and are aware of global problems" (para 13). Fullan (2001) suggests that

> solutions must come through the development of shared meaning. The interface between individual and collective meaning and action in everyday situations is where change stands or falls. (p. 9)

Finding this shared meaning of group identity as learners could potentially be addressed at the local level where a culture of student success can be created within a context of targeted student grouping.

ESPIN: A Local Initiative

One program that aims to address the cultural and social issues of adolescents while working to improve standard indicators of their achievement is the Edmond Summer Program for Intervention Now (ESPIN). Edmond North High School (ENHS) is one of three large 6A (student enrollment over 1500) high schools located in the Edmond Public School District in Edmond, Oklahoma. ENHS traditionally serves an upper-middle class population of approximately 2600 students; however, over the past several years, it has begun to see a number of lower-performing and economically disadvantaged students enter the school. The changing population, along with the *ACE* graduation requirements for individual students, spotlighted the need for the school to create a ninth grade transition program to help students who lack the academic skills necessary to begin high school.

The school's A-F Report Card grade is one of the highest in the state, but economically disadvantaged and minority students were failing at higher rates than ENHS's other populations. This information, along with the growing concern of teachers regarding the preparation of students entering the 9th grade, sparked open

conversation among district and site leaders regarding the school's plan of action to address both issues. In November of 2009, a group of ENHS teachers and administrators were assembled in a freshman team meeting to discuss the school's response to the growing issue of lower test scores and changing demographics. This team of freshman teachers and administrators made a commitment to develop a plan of action to be implemented before the start of another school year. Because the middle school Oklahoma Core Curriculum Tests (OCCTs) in math and reading had been solid predictors of future success on the Oklahoma End-of-Instruction tests, and ultimately on graduation, the team began by looking at the number of incoming freshman students since 2008 who had failed one or both of these tests. The number of students who had failed one or more of their middle school OCCT tests made up the academic bottom 15% of all students entering their freshman year during the 2008-2009 school year at ENHS. Of this bottom 15% of incoming freshmen for the 2008-2009 school year, many were identified as economically disadvantaged. A good number of these students also had a history of behavioral and attendance issues. Using this data, the intervention team continued their discussions throughout the course of the 2009-2010 school year. They researched intervention programs and looked at effective teaching strategies in an effort to thoughtfully respond to students. A number of ideas were considered until ESPIN's components were created. ESPIN began in the 2010-2011 school year, and it continues today.

Funded through a federal Perkin's Grant, ESPIN was designed to provide incoming ninth grade students the skills necessary for successfully transitioning to high school, with the ultimate goal, a high school diploma for each student. The program

targets students who have scored Limited Knowledge (LK) or Unsatisfactory (U) on their middle school OCCTs in reading and math, who have had difficulty earning passing grades, and who have struggled in the areas of attendance and discipline. ESPIN, specifically designed to meet the students' educational, social, and behavioral needs, has several goals. The first is to increase student achievement as measured by the state End-of-Instruction tests – primarily Algebra I, English II, and biology. The second is to increase school engagement by way of improved student attendance, grade point averages, and student behavior referrals. Increased student self-efficacy as measured by the student's ability to access school services such as counseling, after-school tutorial programs, and extra-curricular participation is also an additional program goal.

Program Components

The identification of possible ESPIN program participants occurs in May of a student's eighth grade year based on a pre-established set of criteria. These criteria include failure on a student's middle school math and/or reading Oklahoma Core Curriculum Tests (OCCTs), prior grades, student discipline records, and attendance records. Socio-economic status based on the federal school lunch program, ethnicity, gender, and special education categorization are also documented for the Perkins Grant program evaluation purposes. There are thirty limited spaces in the program, and for this reason, a ranking system is utilized. Selection for invitation begins with a list of all incoming eighth grade students who have failed a sixth or seventh grade OCCT in math and/or reading. Eighth grade reading and math OCCT scores are not utilized for identification because they are unavailable at selection due to the state testing window time frame and release of scores from the state department. From this original list,

ranking and selection for invitation to the program begins. In order to maintain funding from the Perkin's Reserve Fund Supplemental Grant which aims to help economically disadvantaged students, 90% of the selected participants should qualify as economically disadvantaged according to the federal school lunch program. For this reason, ranking order for invitation to the program places priority largely on this one category.

Many students who make the original list due to one failed OCCT test are quickly eliminated from invitation to the program due to a strong educational record including a limited number of OCCT tests failed, consistent attendance, grades of As and Bs, rigorous course work including Algebra I and/or Pre-AP Spanish I at the middle school level, and little to no discipline occurrences. After these students are eliminated, the remaining students on the 8th grade list are ranked-ordered based on need and probable success. This order is determined by middle school principals and counselors who make recommendations for the program based on course rigor, parental support, willingness to provide transportation to the summer bridge portion of the program, the student's behavior indicated by disciplinary records, work ethic indicated by course grades, and students who are new to Edmond who do not have a test history but who seem to be struggling at the middle school level. After the list of students who are invited to participate in the ESPIN program is compiled, the ninth-grade principal extends an invitation to participate in the program to each student and his/her family through letters and personal phone calls. Students and their families then accept or reject the invitation to participate in the program. If students reject participation in the program, the next student on the recommendation list is invited. The effect of this voluntary participation will be addressed in the results and implication portion of this

study. To date, every student who qualifies for the program and who was not eliminated due to a strong educational middle school record, has been invited to participate in the ESPIN program.

The first component of ESPIN is a required parent meeting for all parents and students who have accepted the invitation to enter the ESPIN program. The principal, counselor, and all staff members involved in the ESPIN program attend the meeting to provide information about the program's goals and the required four-week summer bridge course. The parent meeting is also held to promote a partnership between the school and the home.

The summer bridge course begins the first week of June at the end of the students' eighth grade year. It is held from 7:55 A.M. to 12:30 P.M. Monday through Thursday for four weeks. Transportation during the summer course is the parent's responsibility. Breakfast, lunch, and snacks are provided at no cost to the student. The summer bridge program is intended to help identified students who volunteer to participate in ESPIN make a smooth transition to high school by building relationships and familiarizing them with the school (Caldwell, 2007). The program offers individualized academic advising, the personal attention of staff, and a nurturing environment. Most of the summer course activities center on leadership training, skill acquisition, and collaborative group work in the areas of math, science, and English. Students have an opportunity to strengthen their academic skills, develop a peer support network, and familiarize themselves with the high school. The teachers in the summer bridge courses are the core English I, Algebra I, and science teachers whom the students will have when they begin their ninth-grade year.

Because the core teachers for ESPIN were instrumental in creating the program, they readily accepted the challenge of building strong relationships with program students. Not only do the students meet their ninth grade core teachers in the summer bridge course, but they also spend their summer in the Freshman Academy building, taking classes in the same classrooms they will utilize during their school year. This allows students to gain important social and cultural capital by learning to both interact within and navigate through their new school surroundings before their high school careers begin.

The core curriculum during the summer bridge program consists of weekly diagnostic benchmarks that are administered to assist the teachers in identifying learning gaps so that curriculum planning can be targeted for each student. Teachers in the program use a combination of technology and hands-on learning activities to reinforce and remediate concepts that students have failed to master. Smart Board activities, Grammar Jeopardy, Algebra Bingo, and origami vocabulary learning are some of the activities utilized in the bridge program. All academic lessons focus on closing academic gaps while introducing basic essential skills that will be needed during the ninth grade year.

Establishing relationships and instilling confidence in each student are key components of the summer program. The student assistance counselor meets with each student to create a four-year academic plan. This plan identifies what classes each student must take in order to prepare for his/her career of choice as well as the required grade point average necessary for scholarships and grants. The curricular core English, math, and science teachers, along with the student assistance counselor, JROTC

instructor, and the freshman principal work to create an educational environment where students feel safe to ask questions about any topic. To create this environment, students are guided through the process of creating a community of support. Peer support is created through team building and communication activities. The JROTC instructor who operates from a military perspective of respect, use of manners, and proper address of all persons involved guides these team-building exercises. Students are taught to be supportive, kind, and helpful. All comments and responses are expected to be positive and encouraging. No "put-downs" or negative comments or behaviors are accepted. If these do occur, staff members are quick to address the issue and redirect the communication by way of a caring and assertive approach. Statements or questions such as "we are in this together," "we support each other in this classroom," or "can you restate this in a positive or constructive manner?" are utilized to model a positive environment. If needed, students are communicated with privately to discuss more appropriate communication tools.

A culture of success and efficacy is created as staff members celebrate small accomplishments while teaching students to persevere when the learning activity is difficult. Students work with other peers who are similar in their skill level. They witness success, failure, and strategies for overcoming difficulties. This modeling of capability improves self-efficacy. ESPIN students are continually encouraged to "give more" and "be more". They are persuaded to believe in their own abilities throughout the program while at the same time being taught to handle and redirect negative thoughts.

Staff members function as mentors to the participants throughout the summer course and throughout their high school careers. The relationship between the adults and the students is developed through a personalized approach. Caring and interested adults are available daily during the ESPIN program. In an effort to ensure attendance in the summer program, activities include fun enrichment opportunities to complement more formal academic experiences, both designed for high student engagement (Peterson & Sptiz, 2003). Students tour college campuses and explore career options during the summer months. These field trips and formal educational exposures build on the social and cultural capital in students creating more opportunities for interaction, access, and learning (Hemmings, 2007; Peterson & Sptiz, 2003; Rothstein, 2004). Connections to college campus counselors and tech center counselors are created and developed during the summer month.

When the school year begins, program participants are looped together in their three core classes of English, Algebra I, and physical science during the first three periods of each day. The small learning community environment is intended to help develop strong student teacher and peer-peer relationships (Davis & Dupper, 2008) while making the transition to high school easier (Calderon et al., 2005). This looping, along with the summer bridge course, is intended to help students feel secure and more prepared on their first day of high school. ESPIN students already have key relationships with several of their six teachers, their freshman principal, their freshman and student assistant counselors, and their peer group. This head start is intended to increase the knowledge (cultural) and access (social) capital these students bring to

school. They are familiar with the school, the staff, and many of the processes required of high school students before the year begins.

A second component of the ESPIN program is the curricular track ESPIN participants follow. Participants take physical science during their ninth-grade year while all other freshmen, including the qualifying non-program participants, take the traditionally tracked biology science course. Changing the course succession from the biology course, which is normally taken during the ninth-grade year to the physical science course, occurs for several reasons. First, the biology course has a state-mandated EOI test while the physical science course does not. Second, ESPIN program creators believe that more instructional time in the areas of reading, science (by way of physical science), and math during the ninth-grade year will better prepare students for the reading intensive biology EOI exam at the end of the students' sophomore year. Identified qualifying students who are non-participants in the ESPIN program follow the traditional track by attending randomly assigned English I, Algebra I, and biology courses during their ninth-grade year.

Another component of the ESPIN program is the technology piece added during the second year (2011-2012) of the program's existence. The Perkin's Grant monies, used to pay for the summer bridge component of the program, are also used to provide each ESPIN classroom with an IPAD mobile lab. Students are instructed through traditional and technology rich experiences throughout their core classes. For many of the economically disadvantaged students, this technology is unavailable at home. Its use in the classroom promotes equity for these students.

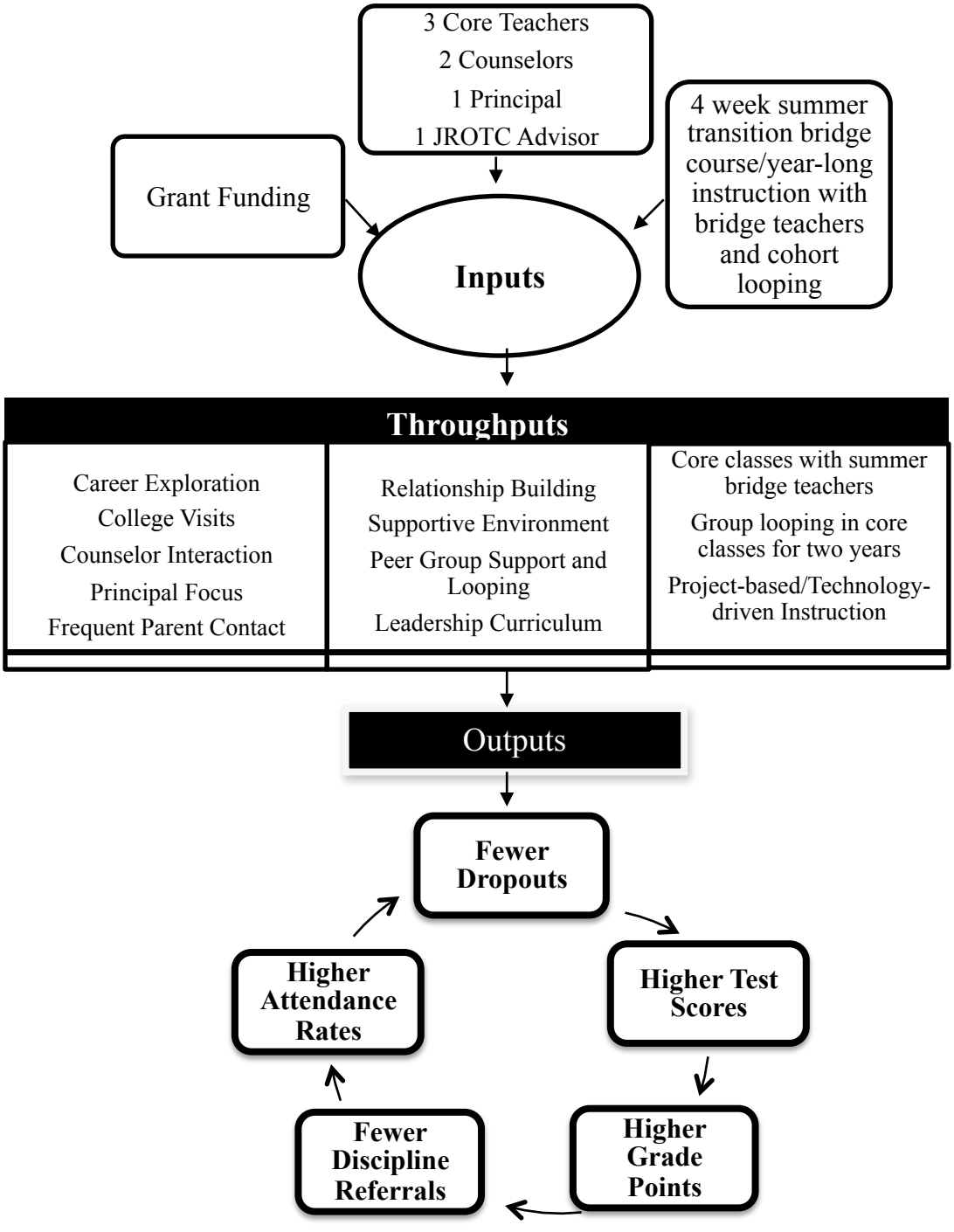
The ESPIN program continues throughout the participants' sophomore year by looping students together in their core classes of English II, geometry, and biology. Sophomore ESPIN students continue to receive traditional and technology rich instruction in these core classes, but the student assistance counselor, freshman counselor, JROTC teacher, and the freshman principal have limited contact with the students unless the contact is student-driven. When the ESPIN students reach their junior year of high school, they are scheduled together in their English III course, although most of the other supports related to the ESPIN program are unavailable except on an individual basis.

The ESPIN logic model illustrated in Figure 1 serves as the conceptual depiction and provides a visual representation of the inputs, throughputs, and outputs of the school's intervention plan which was designed to address the unusually high number of struggling students entering high school below grade level acquisition in reading and mathematics.

This intervention is a theory of planned change that builds upon the idea that a transition program which focuses on relationships and relevance (inputs) though increased time, a specific transition curriculum, leadership training, career exploration, and academic development (throughputs) can achieve a series of qualitative and quantitative goals (outputs) for students entering high school who have had a history of school failure as measured by state testing standards, high occurrences of behavioral and disciplinary challenges, and frequent non-attendance issues. The logic model is founded on the premise that students who are connected to the school process will perform better academically, socially, and behaviorally.

Figure 1

Logic Model of ESPIN



Problem

Within the current federal and state policy environments, schools are primarily judged on the academic achievement of all students as the central indicator of "performance" (Oklahoma's A-F grading policy; FCAT in Florida; TAAS/TAKS in Texas; SOL in Virginia, and now with NCLB, 50 states have exams in operation, with even more grade levels required for testing) (Foote, 2007). Educational programs where *most* students achieve are no longer adequate. When minority and socioeconomically disadvantaged students do not meet the minimum standards on state standardized tests, individual students and schools purportedly "fail", particularly under intensified neo-liberal approaches to "school reform". To help address this problem, schools remediate struggling students. Much of this remediation targets skill acquisition while ignoring the larger social and emotional context of learning (Alexander et al., 2014; Fulk, 2003; Rose, 2009; Rothstein, 2004; Weiss, 2014).

Many remediation and intervention programs repeat the same curricular content and instructional approaches that have already been experienced by students without success (Rose, 2009). Without pedagogical variation or curricular and instructional adaptation, remediation misses its very point: ***re***-mediation, thus giving students more of the same (Rose, 2009). Many current intervention and remediation practices operate on a "wait to fail" policy. When students fail to achieve they are often pulled out of current classes to relearn material that was missed, moved to lower level course work with a lowered expectation for achievement, or left to flounder without a solid foundation of skills. This scenario creates a cycle of failure for students, while other students move on to new material. Adding to the problem of creating effective

remediation and intervention programs are federal and state budget cuts. The lack of financial resources forces school leaders to make difficult decisions about which programs they should fund.

Freshman retention, attendance, behavior problems, core class failures, and poor performance on EOIs are issues affecting many schools, including Edmond North High School (ENHS). Creating the ESPIN program to address these issues is one way ENHS strives to help struggling students succeed during high school.

Purpose of the Study

The purpose of this research question-driven quasi outcome-based program evaluation is to determine the impact that Edmond North High School's ESPIN remediation and intervention program has on the achievement, attendance, and school conduct of program participants. This study was designed to present a formative assessment and statistical foundation for the school and other educational leaders as they strive to create and improve intervention programs to help struggling students transition to from middle school to high school. The study seeks an estimate of impact that is largely attributable to the program itself, rather than other factors through the use of a comparison group design that made strong efforts to control for potential confounding variables due to selection effects. This study examines a ninth-grade grade transitional intervention and remediation program that focuses on curricular and teacher-student interactions that support relationships and relevance (inputs) though increased time, transition curriculum, leadership training, career exploration, and academic development (throughputs). The program was established to achieve a series of quantitative and qualitative goals (outputs) for students entering high school who

have experienced school failure as measured by state testing standards, high occurrences of behavior incidents, and frequent school absences. The explicit and measurable goals of the program include the following: 1) proficient testing levels on the state Algebra I End-of-Instruction test; 2) proficient testing levels on the state biology End-of-Instruction test; 3) proficient testing levels on the state End-of-Instruction English II test; 4) grade point averages which allow matriculation to the next grade level; 5) low occurrence of discipline referrals; and 6) a low occurrence of school absences.

Significance of the Study

Rigorously designed evaluation science studies can inform program development and improvement and lead to the creation of other programs that meet the individual and unique needs of each group of students within a school culture. The remediation/intervention program examined in this study includes the following components: 1) a summer bridge program; 2) peer grouping and teacher looping with three core classes; 3) project-based technology driven instruction; 4) consistent follow-up with counselor and teachers; and 5) intentionally developed teacher-student relationships. Strategically planning for intervention strategies at the high school level requires understanding what factors influence students' academic, behavioral, and social achievement. The ninth-grade year of high school provides the foundation for a successful high school experience and sets the stage for a culture of high expectations and student success. The potential benefits of this evaluation can influence, in a summative and formative way, the design and implementation of ninth-grade

transitional programs, procedures, and methodology at the institutional, regional, and national level.

Overview of Design

An evaluation science research design should include sufficient rigor to produce relatively firm conclusions while also taking into consideration practical issues such as time, cooperation, and protection of human rights that may limit design options. This research question-driven program evaluation utilizes a series of statistical regressions with purposeful sampling to infer whether a causal relationship exists between the ESPIN program and its intended outcomes. Four freshman cohort groups beginning in the 2010-2011 school year are examined in this study.

The ESPIN program consists of students who accept an invitation to be a part of the remediation/intervention program. Students are selected for invitation to the program based on the following criteria: 1) students who have failed one or more of their sixth or seventh grade reading and/or math Oklahoma Core Curriculum Tests (OCCT) during middle school; 2) students who are economically disadvantaged as identified by the federal free and reduced school lunch program; 3) students who have a history of behavioral infractions; 4) students who have a history of poor school attendance; 5) students who are recommended by their middle school counselors and principals because it is believed that they would benefit from the program; and 6) students whose parents agree to provide transportation to the summer bridge four-week program. Students who qualified for and who chose to participate in the program make up the ESPIN treatment group. Qualifying non-participating students make up the comparison group. A comparison between the two groups using a variety of statistical

regressions was utilized to determine the impact of the ESPIN program on student academic, behavioral, and social outcomes. An aggregate of all treatment participants and comparison group participants over the course of 2010-2014 school years was utilized for comparison rather than comparing outcomes for each of the participants over the separate years of the program's existence.

The information needed for this evaluation came from the student data management system (PowerSchool) utilized at ENHS. Student demographic information, grade point averages, behavior referrals, attendance records, and testing information were available in the database. Algebra I End-of Instruction test scores were utilized for academic achievement for all study participants. The biology and English II End-of-Instruction (EOI) test scores were utilized for study participants who had completed their sophomore year. An aggregate of 9th grade attendance records, 9th grade discipline records, 9th matriculation records, and 9th grade grade point averages (GPAs) were utilized for all treatment and comparison group participants. An aggregate of cumulative grade point averages, attendance records, matriculation records, and discipline referrals were reported as additional information for treatment and comparison group cohort members who had completed their sophomore, junior, and senior years.

Research Questions

1. Does ESPIN, a transition program which focuses on relationships and relevance (inputs) through increased time, a specific transition curriculum, leadership training, career exploration, and academic development (throughputs) achieve a series of quantitative and qualitative goals (outputs)

for students entering high school who had a history of school failure as measured by state testing standards, high occurrences of behavioral and disciplinary challenges and frequent non-attendance issues?

2. What evidence exists that the ESPIN program is achieving or not achieving its student-referenced organizational goals as they pertain to equity and accountability?

The following sub-questions were utilized to answer the above research questions.

1. Is there a statistically significant difference between the ESPIN treatment group and the comparison group on the pass/fail rates on the Oklahoma Algebra I EOI test scores?
2. Is there a statistically significant difference between the ESPIN treatment group and the comparison group on the pass/fail rates on the Oklahoma English II EOI test scores?
3. Is there a statistically significant difference between the ESPIN treatment group and the comparison group on the pass/fail rates on the Oklahoma Biology EOI test scores?
4. Is there a statistically significant difference between the ESPIN treatment group and the comparison group on grade point averages?
5. Is there a statistically significant difference between the ESPIN treatment group and the comparison group in attendance rates?
6. Is there a statistically significant difference between the ESPIN treatment group and the comparison group in the number of days out of class due to reported behavior occurrences?

7. Is there a statistically significant difference between the ESPIN treatment group and the comparison group in a student's propensity to matriculate to the next grade level at the end of each year of schooling?

Definition of Terms

The following definitions are used for the purpose of this study and give meaning to the select terms used in this dissertation.

Academic achievement. For the purpose of this study, academic achievement is defined as a score of proficient or advanced on the Oklahoma state mandated EOI tests, or one of the qualifying replacement tests.

At-risk. For the purpose of this study, "at-risk" is used as an adjective to describe students who have demonstrated both social and academic behaviors associated with school dropouts (Lee & Burkham, 2003). "Academic risk refers to a student's performance on testing and earned class grades" (Lee & Burkham, 2003, p. 357) while social risk refers to a student's school conduct, absenteeism, and general disengagement from school (Rumberger, 1983). The use of this terminology has no intent to marginalize students but instead is intended to describe students who meet criteria related to school challenges.

Attendance. For the purpose of this evaluation, this term refers to the annual average daily attendance of the treatment group and the comparison group.

Discipline referral. A notification to the administrative staff that a student has not followed school policy and removal from the classroom is necessary. These offenses require an alternative in-school placement (AISP), short-term suspension, or

long-term suspension. For the purposes of this study, discipline referral and behavior infraction will be interchangeable.

Eco*nomically disadvantaged*. Students who qualify for the federal free and reduced school lunch program based on the federal income eligibility scale. To qualify for the free lunch program, students' families meet 130 percent of poverty level (4 member household with an annual income of $30, 615 or less), and those students' families eligible for reduced-price meals meet 185 percent of poverty level (4 member household with an annual income of $43,568 or less).

Grade point average (GPA). Grade point average (GPA) refers to the mean academic average of students based on the Edmond Public School district's grading policy, a 0-4 point scale.

Low-performing. Students who have a history of failure as measured by scoring an Unsatisfactory (U) or Limited Knowledge (LK) on an Oklahoma state mandated OCCT/EOI tests.

Ninth-grade (9^{th}). This term refers to a student's first year in high school. For the purpose of this study, the terms *ninth-grade, 9^{th} grade,* and *freshman* will be interchangeable.

Technology. Equipment such as IPADS, computers, SMART boards, calculators, Smart phones, televisions, etc. used in the classroom.

Assumptions

1. State, district, and school-level data are collected and measured without error.

2. The ESPIN program is implemented with fidelity prior to and throughout the course of this study.
3. This study can be constructive to the teachers and administrators at Edmond North High School in providing summative and formative data to improve the ESPIN program.

Limitations

1. This study is a program evaluation of a local school district. The results of the evaluation cannot be generalized to other regions, districts, or schools, although applicable transferability of findings is warranted.
2. The quantitative portion of this study is conducted with a limited number of participants; therefore, generalization of results is limited for other transition/intervention programs for students.
3. The number of variables involved in the intervention program makes it difficult to determine if one or all of the components are responsible for any differences among the groups.
4. Long-term effects of the ESPIN transition program are difficult to measure. Factors such as teacher effectiveness, student attendance, program implementation, and individual student life circumstances affect student success (Askew, Fountas, Lyons, Pinnell, & Schmitt, 1998).
5. Students and their parents self-selected their participation in the ESPIN program rather than being randomly assigned to the intervention, making it difficult to isolate program effects.

Summary

Federal and state mandates imposed by non-educators use accountability to judge and measure schools. Standardized student academic achievement test scores are used as indicators of proficiency and are the educational targets for all students although it is clear that variables outside the school's reach affect these measures (Putnam, 2015; Rothstein, 2004; Weiss, 2014). Regardless of this fact, schools must continually seek ways to improve the instructional program available for students who have difficulty meeting state and national standards. Students who fall short of targeted goals must be given extra time, instruction, and resources to meet these goals. Although remediation and intervention programs are important to student success at all levels, they are particularly important for high schools struggling to make the grade and for high school students struggling to meet graduation testing requirements.

Researching high school remediation/intervention programs can provide educators a better understanding of options available for helping all students find success. Bridge programs, student-teacher relationships, peer grouping, technology, and career counseling are all components that may contribute to a successful high school transition and intervention program.

Overview of Study

This study examines the effects of a ninth-grade transition program aimed at student success. The study is divided in to five chapters. Chapter 1 includes an introduction to the study, statement of the problem, purpose of the study, definition of terms, research questions, limitations and assumptions, and an overview of the study. Chapter 2 provides an overview of the literature pertinent to study. Chapter 3 describes

the research methodology and procedures that were used to complete the program evaluation. Chapter 4 reports the evaluation science results, including findings and conclusions. Chapter 5 includes a summary and discussion of the study, a summary of the results, conclusions, contribution to the literature, and recommendations for further research.

Chapter 2: Literature Review

Introduction

This chapter provides a review of the literature related to the subject of struggling students during their transition from middle school to high school and to the topic of intervention and remediation programs that have the potential to effectively impact student educational and social success during this transition. This review begins with the issue of accountability and the impact the movement has had on education. The second section looks at the definition and background of remediation and intervention programs. This information contributes to the third section that examines existing remediation and intervention programs. The fourth section addressed in this review of literature is the role that social and cultural capital play in the educational experience. The fifth and final section summarizes the literature and discusses the implications for remediation and intervention programs.

Accountability

The challenges facing the U.S. educational system are compounded by the competitive nature of the growing global society. Educators face a daunting task as the collective needs of students and society continue to change. Despite educational reforms, students and schools continue to struggle against public criticism. Peter Drucker, a well-known management consultant, educator, and author once said, "Get the assumptions wrong and everything that follows from them is wrong" (as cited in Gordon & Crabtree, 2006, p. 13). Mike Rose (2009) poses the question, "Why School?" If the answer to the "why" is wrong, so is everything that follows. How Americans talk about education, what they expect from it, and what they use to evaluate it make a

difference for the worth it has to the nation. Currently, high stakes testing, student achievement scores, and accountability dominate the conversation. Many believe focusing on these factors will create better students and in the end a more dominant America. Rose (2009) contends that this focus is off base.

> It is our experience of an institution that determines our attitude toward it, affects what we do with it, the degree to which we integrate it into our lives, into our sense of who we are. We need to pay attention to the experience of going to school (p. 32).

Policies that measure excellence through high stakes testing, school comparisons, and funding mandates create an environment that leaves little room for the *experience* of school.

Russia's launch of the Sputnik satellite in 1957 could be considered the catalyst for accountability in America's educational system (Trace, 1961). This launch began a series of governmental actions that changed public education. In 1958, the National Defense Education Act (NDEA) was passed, sparking conversation about the inadequacies of U.S. schools and implying that they were academically behind the Soviet schools (Trace, 1961). The NDEA provided federal funds to strengthen the educational system in mathematics, science, and foreign languages, but stipulations were placed on the funds. The NDEA "became a means by which the federal government could control local educational policy simply by offering money for the establishment of specified programs" (Spring, 2001, p. 370; see also Ravitch, 2010). This national awareness also "marked the beginning of a perceived need for the federal government to involve itself in educational curriculum" (Ellis, 2007, p. 222).

The Civil Rights Movement of the 1960s turned the focus of the federal government to the remedial needs of minority students and children of poverty (Gold,

2002). The Economic Opportunity Act (EOA) of 1964 provided direct economic support for the poor. The Extended School Program, Title I of the Elementary and Secondary Education Act, Head Start, Upward Bound, Great Cities, and school lunch programs all had their start with funding from the Economic Opportunity Act (Gold, 2002). By the 1980s, public education was the center of attention for politicians and policy makers. President Ronald Reagan campaigned to reform U.S. schools by creating a commission to report on the state of education. Then in April 1983, the National Commission on Excellence in Education released their report framed as an "open letter to the American people" - also known as *A Nation at Risk: The Imperative of Educational Reform*. This report declared, "the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a nation and a people" (The National Commission on Excellence in Education, 1983). The authors of the report urged educators, parents, and elected officials to reform the public school system so that America's "once unchallenged pre-eminence in commerce, industry, science, and technological innovation . . . [would not be] overtaken by competitors throughout the world" (The National Commission on Excellence in Education, 1983, p. 1).

The authors of the report used statistics to suggest that the quality of American education was inadequate. Based on these data, the commission listed five categories of recommendations for correcting the problems: 1) content, 2) expectations, 3) time, 4) teaching, and 5) leadership/fiscal support (The National Commission on Excellence in Education, 1983). These recommendations included a "new basics" curriculum for all students that consisted of four courses in English, three in mathematics, three in science,

three in social studies, one-half credit in computer science, and two credits in foreign language for students planning to attend college. The commission recommended that schools adopt rigorous and measurable standards and that universities and colleges raise admission requirements. Another recommendation was that schools devote more time on task, teaching the new basics. This recommendation could include lengthening the school day, the school year, or just using time in the existing school day more efficiently. The fourth recommendation addressed teaching and improving teaching quality. The suggestions given in this category included higher standards for teacher preparation programs, professionally competitive teaching salaries based on performance, more time for professional development, career ladders and incentives for drawing highly qualified applicants to the profession, and mentoring programs for novice teachers. The final recommendation category examined leadership and fiscal support (The National Commission on Excellence in Education, 1983).

Many educators have criticized the report for its extreme statements about public education, and many scholars question the statistics used to document educational failure. In their book, *The Manufactured Crisis*, David Berliner and Bruce Biddle (1995) claim that *A Nation at Risk* was a political ploy to mislead the nation about the quality of public schools. They contend that the report initiated a series of misdirected reforms. John Goodlad, a well-known and respected educational scholar, also argued that the report overstated the link between student achievement and the national economy (Goodlad, 2003). Goodlad noted that most of the media attention was given to negative aspects of the report without much emphasis being given to the report's recommendations. Peterson (2003) issued concerns that the report focused

mostly on high schools, and practically ignored K-8 education. McDill, Natriello and Pallas (1985) cited evidence that increasing curriculum rigor did not improve achievement, and in their view, only placed more students at risk of academic failure. Despite the report's weaknesses, it had a strong influence on America's education system. It led to comprehensive school reform efforts by drawing attention to the importance of school accountability. Often referenced by President Ronald Reagan, *A Nation at Risk* became the staging area for many political battles (McDill et al., 1985).

President George W. Bush introduced the No Child Left Behind Act (NCLB) in 2001. A reauthorization of the Elementary and Secondary Education Act of 1965, NCLB positioned accountability talk at the forefront of educational policy decisions yet again. Passed by the U.S. Congress with bipartisan support, NCLB was signed into law on January 8, 2002. This legislation supports standards- based education reform and allows federal control over educational matters through annual testing, annual academic progress, report cards, teacher qualifications, and funding changes. Although the legislation did not establish national achievement standards, it did give the federal government a larger piece of each state's educational pie (NCLB, 2004; Ravitch, 2010). In short, supporters of NCLB advocate

> for the law's stringent accountability mandates, characterizing them as vital levers of change, inclusiveness, and transparency of results … [With NCLB] greater attention is being paid to what is being taught and how it is being taught." (Jennings & Retner, 2006, p. 4)

Basically, supporters believe that what gets measured, gets done; and the best way to do this measuring is through mechanistic, bureaucratic organizational control mechanisms by means of social policy carrying rewards and consequences (Ravitch, 2010).

Opponents of NCLB argue that the focus on standardized testing encourages teachers to "teach to the test" by focusing on a narrow subset of skills, rather than helping their students' acquire a deep understanding of the full depth and breadth of the curriculum. The fact that states can set their own standards and produce their own standardized tests is another concern about the legislation. NCLB's incentives for improvement may cause states to make their statewide tests easier in order to increase scores (New Study Confirms, 2003). Opponents also argue that NCLB's requirement to evaluate school progress on the basis of demographic subgroups "might disproportionately penalize schools with diverse student populations," and that the "rules surrounding adequately yearly progress and the goal of 100 percent proficiency by 2013-14" are unreasonable (NCLB, 2004). These concerns validate Rose's (2009) statement which suggests that "we put into place a testing program without thinking ahead to how it might redefine teaching or about the model of the mind that's implied in it" (p. 6). Although the primary purpose of NCLB is to ensure that all children have a fair, equal, and significant opportunity to obtain high-quality education, the social policy may be producing the opposite effect.

As school districts seek to identify and remediate under-performing students, their focus is not on student growth as much as it is on meeting federal and state standards. Emphasis has moved away from maximizing student learning, and instead, has been centered on making sure that all students are meeting the minimum requirements. All students must reach, at minimum, proficiency on state academic achievement standards and state academic assessments regardless of race/ethnicity or socio-economic status (*Important Aspects of NCLB*, 2005). Schools are also required to

make Adequate Yearly Progress (AYP), as outlined in the No Child Left Behind legislation. Again, this score directly relates to minimum proficiency standards. Under the four pillars of NCLB, schools and districts are required to disaggregate test data into clearly defined student subgroups, use data to drive instruction, report test scores annually, report concerns associated with staff quality and certification, and select and implement programs and practices supported by scientific research (Ravitch, 2010; Simpson, LaCava, & Graner, 2004).

The impact of NCLB is being felt at schools all across the nation. Schools that fail to show "adequate yearly progress" are met with sanctions that can affect school funding, school autonomy and school control of administration, staffing, and curriculum. Chronically failing schools may also be faced with the loss of their student populations as school choice becomes available to parents whose children attend these schools. Unfunded mandates put financial pressures on schools, and administrators, teachers, and students feel the pressure of performance indicators that do not always tell the whole story. NCLB defines success as "boosting youngsters' reading and math achievement test scores" and it is "where the Obama administration is putting its dollars" (Kirp, 2011, p. ix). Educators know that test scores are a small part of what schools do, what they can do, and what they should do, but they are operating in a system that seems only to value what test scores reveal.

None would argue that accountability is necessary to gage the effectiveness of any program – business or school - but the question remains, "Why school?" (Rose, 2009; Kirp, 2011). Continuing along this path of accountability may actually create a larger equity gap in lower socio-economic and diverse ethnic groups. A host of family

and societal factors that influence a child's rate, quality and level of learning are not considered in the accountability measures that grade schools and school districts, especially performance measures that are a simplistic single indicator such as a "report card" with an assigned letter grade.

"Demography is not destiny, but students' social and economic family characteristics [and systemic institutional arrangements] are a powerful influence on their relative average achievement" (Rothstein, 2004, p. 16). In 1966, a 700 page report titled *Equality of Educational Opportunity*, more commonly referred to as the *Coleman Report,* claimed that a student's background and socioeconomic status are much more important to student achievement than are the effects of schooling per se. What the *Coleman Report* found is that "all children learn in schools, but those from lower classes, on average, do not learn so much faster that they can close the achievement gap" (Rothstein, 2004, p. 15).

Currently, any gap between individuals or any subgroup of students depends on how difficult the cut score is. If states want to hit the 100% pass rate, they need only to design tests that measure minimum standards while identifying low cut scores as proficient. Rothstein (2004) suggests that

> schools should consider achievement in the wide range of skills that schools should produce – not only basic math and literacy, but also the ability to reason and create, an appreciation of history, science, art, and music, and good citizenship, self-discipline, and communication skills. (p. 16)

Although most Americans believe that these skills are needed for an informed and civil society, the accountability system imposed on schools today allows little time for focus on these domains. Most educators would argue that they must spend their time drilling and covering basic concepts for students to meet required accountability standards, and

empirical literature exists that confirms these observations from practitioners (Mora, 2011; Nichols, Glass, & Berliner, 2005; Tingey, 2009).

Rothstein (2004) states that accountability policies that focus on closing the achievement gap through drill and skill routines are "unlikely to close the social class gap in learning" (p. 22). This social gap is the very same gap identified in the 1966 Coleman Report. Suggesting that this gap can be closed if educators work harder and do a better job is impractical. Reports of successful 90/90/90 schools (those schools that consist of a 90% minority population, 90% of students qualify for free and reduced lunch, and 90% of the students scored at or above grade level on state administered tests), charter schools, magnet schools, and individual classroom teacher's success feed this assumption, and if people "get the assumptions wrong … everything that follows from them is wrong."

Rothstein (2004) reviewed the Heritage Foundation's "no excuses" schools that were said to have escaped the "cult of public education" (p.71). He found that the report, by omitting information, created an inaccurate picture. Data had been skewed or omitted to highlight student, teacher, and school successes. Only six of the twenty-one schools on the list were fully non-selective schools, and other schools on the list had special circumstances that contributed to their successes (Rothstein, 2004). They did not exemplify what truly disadvantaged students bring to school.

Other schools highlighted on the Heritage Foundation list had issues with the data used as support for these schools. Some schools reported only primary grade scores and did not include the declining scores of the students when they entered the upper grades. Two of the schools were school-of -choice Knowledge Is Power Program

(KIPP) schools. In these schools, parents are committed partners in their children's education. They sign contracts agreeing to abide by KIPP's rules and procedures. As a result, these schools often have a high turnover rate (Rothstein, 2004). Education Trust's high-flying schools also publicize a program that can overcome the social achievement gap, but they use isolated results such as one grade for only one year for reporting purposes. Many public schools can report such success if they too choose only one grade level as the accountability point (Rothstein, 2004).

There are even more concerns about these schools that claim to have overcome the problems that plague public schools. The 90/90/90 schools that proclaim high student achievement are often reporting only basic level proficiency scores. Most families want more for their children than basic level skills. The Pentagon schools are successful, but they have built in health and social services that public schools do not have the luxury of providing. They also require parent involvement, and children are educated together regardless of social class. An officer's child sits next to a basic recruit's child, each being exposed to the same high expectations. Another important part of this story is that funding in many Pentagon schools is 25% higher per pupil than in public schools (Rothstein, 2004). It hardly seems reasonable to compare these schools with all public educational facilities because they operate under different guidelines and with different resources.

Publications like the Heritage Foundation's list of 'no excuses' schools seem to be proof that accountability measures work. However, after looking closely at their reporting, it is easy to see what is missing from their success stories, and why these schools cannot be used as comparison sites for other public schools. The good that has

come from the accountability movement may not outweigh the potential it has taken from U.S. students. When asked what they want from the nation's schools, most people in the U.S. do not answer, "High test scores." In fact, they speak of soft skills that come from the non-cognitive domains - skills such as responsibility, cooperation, communication, and citizenship. Rothstein (2004) mentioned several different survey studies related to public schooling. The first was a 1994 survey in which two-thirds of those living in the U.S. said that teaching values was a more important role of public schools than teaching academic subjects. In more recent surveys, other goals were identified such as preparing responsible citizens and helping students become economically self-sufficient. These two statements were identified as the top two purposes of public schools. In another survey, 80% of Americans said it was very important for high school graduates to practice good citizenship, while only 50% of Americans said test scores were important (Rothstein, 2004). The classrooms of today have little time to spend on the non-tested non-cognitive domain areas such as citizenship, responsibility, and values.

Consequently, educators feel that they have lost the ability to do what is best for their students (Toppo, 2007). Although student and community needs differ from school to school, federal and state mandates have made it difficult to focus on these individual site needs. Instead, "teachers spend most of their days talking about or looking at data" (Toppo, 2007, para. 2). Individual students become numbers in the pursuit of hitting that cut score. Proficiency counts, and federal monies and laws are tied to achievement. Under this system of accountability, testing standards are "watered down to the point that all children can achieve them with little improvement in instruction" (Rothstein,

2004, p. 88). Regurgitating a narrow set of skills becomes the cognitive norm. Time is being spent instructionally on the low achieving students in order to receive federal funding incentives. "But when planners try to manage the complex systems that have multiple goals by setting quotas only for the most easily quantifiable of those goals, the incentives distort the output" (Rothstein, 2004, p. 91). Curriculum guides, pacing calendars, core standards, and in some situations, a scripted curriculum, are used to ensure that every student receives the same instruction. In a controlled effort to give every student the same school-based curricular and instructional experiences, policymakers have widened the sociological gaps of opportunity (Rowan, 1990). The outputs look strong when students pass at the 'proficient' levels, but the inputs matter too.

Educators recognize that "some of the testing actually helps drive better instructional strategies and, in that respect, is helpful . . . But [they are also] overwhelmed by the sheer volume of testing" (Toppo, 2007). The reality of the situation is that testing can take up to six weeks or more in some schools. Educators see the impact (emotional, physical, and fiscal) of the accountability testing. Testing companies seem to be the biggest winners – testing is a multi-million dollar industry. The financial and time ramifications of many testing policies seem to go unnoticed by policymakers.

There are obviously many issues surrounding accountability. The truth, however, is accountability has been and will always be present in schooling in some way. The difference lies in the "for what" and "to whom" accountability is used and is applied. Equal access and treatment have been replaced with equal attainment (Anderson, 2005). Accountability may not accomplish equal attainment without

unintended costs, but it has helped ensure that students are exposed to increasingly higher standards and more equal access. School athletes can no longer take fewer academic courses to help them remain eligible to play. And teachers can no longer shut their doors and be autonomous to the world around them (The Principal Files, n.d.). The implementation of accountability standards and related testing apparatuses, whether they are graduation or grade level standards and tests, has in some ways helped both students and teachers. David Gergen (as cited in Childress et al., 2009) suggests that

> we know that every child – regardless of income, family structure, or racial and ethnic background – is capable of learning if well taught . . .We know, too, that standards and accountability matter: if we set high standards and have an excellent school, student performance improves for students of low as well as high income. The blame for the state of our schools is not with kids; it is with us, the adults, for not providing better teaching and public school leadership. (p. vi)

Accountability has helped educators focus on the use of data to drive decisions and to find instructional strategies that reach all students. But simply taking such a narrow view of accountability as "bean counting" student test scores as a performance outcome measure is clearly not enough. A much broader notion of responsibility is required to ultimately reach the twin goals of equity and excellence in public schooling. Accountability is focused on the ledger whereas responsibility is focused on moral intent (Starratt, 2006). Collaboration and communication have become commonplace in many learning communities. Tougher standards challenge good teachers to find better ways to reach students, but the complaint that accountability has taken all the joy out of teaching can also be argued (Tingey, 2009; Ravitch, 2010). Most educators agree with accountability, but they want those holding them accountable to know what they are doing. Equal attainment from equal baselines is a practical goal, but students are human

beings. No two are exactly alike. Social capital, and yes, even genetic markers make a difference in the baseline. Educators would like nothing better than to have every student come to them ready to learn- students from a loving home, students with a full stomach, and students with an understanding of the value of education (The Principal Files, n.d.). They would also like for senators, legislators, and other policymakers to understand what teaching really looks like.

In the race to ensure that all students receive an equitable education, the system has changed into one that requires students to acquire only the basic skills necessary to be considered "proficient." As cited in Tyack and Cuban (1995), "an unintended result [of testing accountability] was inattention to complex thinking skills and to the challenge of fitting the curriculum to the cultural backgrounds of the students" (p. 62).

The unintended results of a nation-wide accountability system that seeks equal attainment as opposed to equal opportunities are many (Ravitch, 2010). Americans need look no further than their nightly news to see or hear the desperate measures being taken by many school administrators, teachers, parents, and students to save face in the storm of accountability. School closings, school report card grades, Parent-Trigger laws, punitive evaluation systems, and cheating scandals abound (Ravitch, 2010). Pressure really does make people do things they might not normally do. Protect or retreat - often these seem to be the only avenues to avoid unwanted educational criticism - both have consequences.

If quality teachers and leaders retreat from the schools which face the greatest challenges, equity may never be possible. Grading schools and outwardly judging teacher performance by student attainment can scare off even the most confident,

qualified professional – especially when the same work, for the same salary, can be accomplished in a less difficult situation. Although many young teachers feel "called" to teach, the current challenges affect even the strongest teachers. Almost 50% of new teachers leave the profession within the first five years (Heck, 2010; Hudson, 2009; Ingersol, 2001). The other side of retreat is protect. Although educators work diligently to defend the profession they love and support, many frustrated and burdened educators learn to operate inside a system that can be manipulated to cover up failure or to present a favorable impression. The most desperate violate the professionalism of the field by cheating, lying, or covering up wrongdoings. These situations draw negative attention to the field of education, but the overwhelming majority of educators seek excellence in educating the students who walk through their classroom doors each day.

Conversation is gathering momentum in the trenches where the real work happens. Educators know what their schools are capable of, what their communities want, and what their students need. Sarah Lawrence Lightfoot (as cited in Tyack & Cuban, 1995) says it best when she states that "across the nation there are teachers who have the wisdom to reject fashionable innovations that violate their sense of what their pupils need and instead to experiment on their own terms with reforms they believe in" (p. 132). Additionally, Kirp (2011) showed us many of these cases where a "grass roots" initiative started programs that are making a difference in kids' lives. Action can begin with one small step in one small room (Tyack & Cuban, 1995). And this action is happening across the nation inside schools.

Single voices matter also. Educators know what is working, and they have ideas about what can be improved (Ravitch, 2010). David C. Berliner, an educational

psychologist, (as cited in Tyack & Cuban, 1995) states that "the public school system of the United States has actually done remarkably well as it receives, instructs, and nurtures children who are poor, without health care, and from families and neighborhoods that barely function" (p. 37).

With an inside out movement, the experts (teachers, administrators, parents) can create programs that work in their communities with their children. Tyack and Cuban (1995) suggest that this "demands an understanding of what most strongly motivates and discourages teachers. One place to start is to ask teachers what bothers them the most and to begin reforms there (p. 139). Longevity in the system will come "from internal changes created by the knowledge and expertise of teachers [rather] than from the decisions of external policymakers" (p. 133).

Rothstein (2004) asks the million-dollar question:

> Can all this be fixed? Not if we insist on a mechanistic system that allows federal administrators to judge whether schools are successful or failing simply by examining data reports from annual tests. Not if we redefine the achievement gap as differences in the rates at which racial minorities and lower-class students approach politically manipulated definitions of proficiency. And not if the purpose of these tests is to assess whether schools are reaching an impossible goal – equalizing achievement between children of different social classes while we fail to reform the economic and social institutions that ensure unequal achievement, on average, for children of different social classes. (p. 94)

School reform that works to improve the system for all students cannot fail to recognize that schools must address more than academic subjects - other outcomes matter (Alexander et al., 2014; Putnam, 2015; Rose, 2009; Rothstein, 2004; Weiss; 2014). Thought leaders, policymakers, educators, and society at large must get the assumptions right about what public schools should do. Without the correct foundational assumptions, everything that follows will be wrong. Local educational

leaders and educators know what their students need. If given the opportunity and freedom to create programs that meet individual and local site needs, educators can make a difference in the success of the students who enter their schools.

Intervention and Remediation

"Intervention" and "remediation" hold infinite possibilities for schools and the students who attend them. In his book *Why School? Reclaiming Education for All of Us,* Mike Rose (2009) states that America is a "nation that prides itself as being a 'second-chance' society" (p. 135). If this is true, educators must embrace the second-chances that accompany student failure and re-define what re-teaching and re-learning means. Rose (2009) calls this ***re***-mediating remediation, or in other words, improving the effectiveness of current remediation and intervention programs.

Many remediation programs are built on the immediate concern of ensuring all students have the minimum academic knowledge for promotion and graduation (Balfanz, Legters, & Jordan, 2004; Gamaoran et al., 1997; Grossman & Sipe, 1992; Myers & Schirm, 1999; Quint et al., 1999; Woodruff, Schumaker, & Deshler, 2002). These programs have been built on several strategies intended to increase academic skill level including 1) pulling students out of their current educational program, 2) requiring supplemental courses, 3) pushing teacher aides into the classroom, 4) intensifying delivery of the same curriculum which resulted in failure, and 5) requiring more seat time in academic subjects (Calderon et al., 2005).

Rothstein (2004), Rose (2009), Kirp (2011), and a slew of other researchers and authors contend that schools must focus on a wider range of skills in order to provide students with the ability to lead productive and meaningful lives. Refining remediation

requires addressing the cultural conflict between student lives and the current educational system, student behavioral patterns and juxtaposition in schools, and student engagement (or the lack of) in the educational process (New York City Board of Education, 1990; Rose, 2009; Kirp, 2011; Cook et al., 2014).

Re-mediating the practices and polices surrounding current programs is not an easy task. *Keep the Promise*, a three-year research study being carried out in Massachusetts, identifies the challenges surrounding remediation and intervention programs as 1) staff, time, and budget management, 2) curriculum and instruction, 3) teaching quality, 4) participation and attendance, and 5) helping the most challenged (Mass Insight Education, 2005). These challenges, however, are not insurmountable. Carl Cohn (as cited in Ravitch, 2010) states "ground level solutions, such as high-quality leadership, staff collaboration, committed teachers, and clean and safe environments, have the best chance of success" (p.76). "School reform is a slow, steady labor-intensive process" (Cohn as cited in Ravitch, 2010, p.76). There is no better illustration than that which exists in the examination of the history and future of remediation and intervention programs and policies.

Webster's New World Dictionary (1986) defines remediation as the "act or process of remedying or overcoming learning disabilities or problems" while the base word *remedy* is defined as "something that corrects, counteracts, or removes an evil or wrong" (p. 1201). Both of these definitions, in some sense, convey a negative connotation – a picture of something that is wrong and needs to be corrected. The term intervention is defined as "the act of intervening" while the base word *intervene* is defined "to come between as an influencing force, as in order to modify, settle, or

hinder some action, argument, etc." (p. 737-738). Both words reflect a need to correct or change something; this is the reason Rose (2009) suggests re-defining the educational meaning behind the words *remediation* and *intervention.*

Remedial education had its roots at the college level. In the 17th century, Harvard College provided tutors for students who lacked the preparation for their college curriculum. This set the stage for other universities to provide remedial and transition courses for students lacking basic skills (Casazza & Silverman, 1996). Then in 1944, remediation hit the national agenda when the GI Bill was introduced to provide help for World War II veterans. This piece of legislation provided veterans with funding for educational tuition, living expenses, and educational remediation (Pulliam & Van Patten, 1999; Ravitch, 2010).

Soon after the GI Bill's release, Russia's launch of the Sputnik satellite in 1957, the passage of the National Defense Education Act (NDEA) in 1958, the Civil Rights Movement of the 1960s, and the Economic Opportunity Act of 1964 put public education at the forefront of a national conversation. Many people began to question the nation's ability to compete in the world market, and a call to "remedy" U.S. public schools was echoed across the nation. The federal government became more involved in remedial efforts when President Johnson's 1965 measure known as Title I, Improving the Academic Achievement of the Disadvantaged, a component of the Elementary and Secondary Education Act (ESEA), was implemented to improve educational opportunities for children of poverty (Pulliam & Van Patten, 1999; Ravitch, 2010). From this point in history, remediation became an expectation of public schools; they were required to provide resources to improve the academic achievement of

disadvantaged students. A series of educational reforms including the Carl D. Perkins Vocational and Applied Technologies Act of 1990, and Educate America (Goals 2000) of 1994, all played a part in the changes to the American educational system (Clark, 2010).

Concerns about public education peaked when President George W. Bush introduced the No Child Left Behind Act (NCLB) of 2001. Signed into law on January 8, 2002, this legislation requires that all students achieve academic proficiency by 2014 and that all schools close the achievement gap (Price, 2008; Ravitch, 2010). NCLB also uses graduation rates in school performance evaluations, requiring that all schools report graduation rates using the same standards by 2011 (Price, 2008; Ravitch, 2010). The reporting of this data drew attention to the number of dropouts in some of America's high schools and the unequal graduation rates by race and socioeconomic status. Schools and the educators who served inside them were forced to examine their instructional delivery systems. Remediation and intervention programs became important components in preventing dropouts and serving at-risk students. NCLB outlines strong incentives for educational equity by imposing financial sanctions on schools that consistently fail to improve graduation rates and test scores. Fearful of losing federal education dollars, many schools and their educational leaders have looked to remediation and intervention programs to help improve educational opportunities for students who are not proficient in one or more subject areas as measured by testing (Price, 2008).

At the high school level, many of these efforts have largely focused on easing the transition from 8th grade to 9th grade because students have a tendency to drop out at

higher rates in the 9th grade than in any other grade (Fall & Roberts, 2012; Fulk, 2003; Roderick & Camburn, 1999; Snyder & Dillow, 2010;). The first year of high school can be a difficult time in an adolescent's life. Not only do students enter an unfamiliar environment, but they also face increased expectations for their academic and social performances. These expectations often cause students to experience a decline in their grades and attendance. This is especially hard for students who lack the academic preparation for success. Several factors associated with 9th grade dropouts include low or failing grades in core subjects, low attendance, failure to be promoted to the next grade, behavioral problems, and disengagement in the classroom (Fall & Roberts, 2012; Kennelly & Monrad, 2007; Pharris-Ciurej, Hirschman, & Willhoft, 2012). Many high school remediation programs focus on alleviating these stressors through summer bridge programs, ninth-grade academies, and supplemental academic instruction.

Although remediation began at the college level and continues to be utilized as a way to offer basic skill training to less-prepared students, it has become commonplace in the K-12 education system. There are many different ways remedial/intervention programs function in schools. Understanding the progression of such programs is important in creating programs that work for all students.

Summer school originated in the early 1900s. Known as vacation schools, they were created to help parents who left children unattended while they were at work in the factories (Shepard & Baker, 1977). These schools offered structured activities during the summer months in the hopes of keeping students off the streets. Vacation schools had no direct link to the school's curriculum, and instead, focused on recreational activities, nature explorations, and community outings. Businessmen, women's groups,

and settlement workers led the programs. When these programs became larger and more challenging than expected, community supporters looked to the school system to manage, supervise, and finance them (Shepard & Baker, 1977). After schools became involved, the programs adopted a more traditional educational format. The vacation schools of the 1920s were now summer schools "offering remediation and enrichment for academic credit" (Gold, 2002, p. 178). This marked the beginning of summer schools being used as an institutional programming add-on to help struggling students acquire academic skills and marked the ending for the fun "vacation" schools of the 1920s.

In 1933, the Conference on Child Health and Protection publicly recognized the educational value of summer educational programs by encouraging an increase in their use for children (Gold, 2002). Then in 1999, the U.S. Department of Education published *Taking Responsibility for Ending Social Promotion: A Guide for Educators and State and Local Leaders.* This guide, much like the 1933 conference, acknowledged the benefits of extended learning time in venues such as after school and summer school programs (U.S. Department of Education, 1999).

Summer schools have continued to morph to meet different community, school, and individual student needs. Often used as remediation sessions, summer schools have been used as a last resort for failing students to earn credits they have not acquired through a regularly scheduled academic year. In these situations, skill and drill efforts are often used to "catch kids up" (Alexander, Entwisle, & Olson, 2007). Summer programs are also used as interventions at the secondary level to help bridge the gap between middle school and high school. "Elementary school is very similar to middle

school; high school is very similar to the first year in college; but the last year in middle school is nothing like the first year in high school" (Hertzog, 2006, p. 60). Although this structural arrangement between schooling levels is widely known, high schools are seldom equipped to provide students with support services and individualized attention to ease the transition (Calderon et al., 2005). For disadvantaged and low achieving students this transition from middle school to high school can be even more difficult. When students graduate from being the most knowledgeable students in school to the youngest most inexperienced students in school, they can suffer feelings of anxiety and isolation (Blyth, Simmons, & Carlton-Ford, 1993; Chmelynski, 2004; Cooney & Bottoms, 2002). Interventions that help address these needs may help prepare students for a successful high school career. Summer school programs, whether used for remediation or intervention, are difficult to assess in terms of their effectiveness in improving student achievement. They vary in design, curriculum, length, duration, grade level, and they have differing outcomes and expectations. This lack of uniformity makes assessment of such summer programs difficult (Calderon et al., 2005).

Although federal and state agencies support the use of summer programs to enhance student achievement, there are down sides to this type of remediation and intervention effort; the first of which is cost (Richard & Hoff, 2003). Support for summer programs most often comes without federal funding to sustain them. As a result, educational leaders see summer programs as add-ons to the regular school design. When funding is tight, summer programs are often the first to be eliminated (Richard & Hoff, 2003).

The cost benefit ratio of summer programs is another concern. Metzker (2003) examined the cost of adding school time versus the benefits of this additional time. What he found was that time-on-task was most important. When the subject matter is being taught to "the student's ability and readiness level" is when the most learning occurs (Metzker, 2003, p. 2). Although after-school and summer sessions all provide additional learning times, Metzker (2003) concluded that given the high financial cost of this time, the better investment would be to focus on raising the quality of teaching and maximizing student engagement during the school year. This is an important finding because it directs educational leaders to focus on utilizing time effectively when creating remediation and intervention programs.

A final concern about summer remediation and intervention programs hinges on the idea that *"school* means failure to many students" (Rose, 2009, p. 132). The "vacation schools" of the past are non-existent in the structured focused environment of many summer programs in operation today. Remediation and intervention summer programs are not the fun discovery learning sessions of the 1920s; instead, they hold more of the same schooling for students too accustomed to failing during the regular school year.

Ninth-grade academies are also being utilized by secondary schools as a freshman intervention. This approach groups freshmen into a school-within-a-school to create smaller learning communities. These smaller units often allow teachers to focus on students' social and emotional needs (Cook, Fowler, & Harris, 2008). This supports the belief that learning occurs when students are confident and motivated to achieve (Davis & Dupper, 2008). Freshman academies often include mentoring or social skill

development designed to change student attitudes, motivation, or beliefs about schools. They use data systems to spot early warning indicators for struggling students, employ a school counselor to support "at-risk" students, and assign a freshman principal to support academy staff and to facilitate the policies and procedures appropriate for adolescents in this age group (Caldwell, 2007). Freshman academies offer "insulation" without "isolation" for students at a vulnerable period in their adolescent development.

Other remediation efforts utilized in secondary schools include pull-out, push-in, or double-block remedial and intervention programs. Remedial classes are often needed in high schools to re-teach essential concepts, especially in the area of mathematics and reading. To meet this need, pull-out programs are widely utilized. These programs remove students from their on-level classes and place them in remedial math and/or English courses. Students qualifying for these courses often lack basic academic preparation and good study habits. Time management, a positive self-esteem, an ability to positively interact with others, and a lack of parent involvement are also characteristics common among students qualifying for these remedial courses (Hertzog & Morgan, 1998). Proponents of this intervention model argue that enrolling "at-risk" students in these courses can help close skill gaps which often prevent students from succeeding in the rigorous core classes required in high school (Gamoran & Nystrand, 1994).

Opponents of this model question whether remedial classes achieve their goals of preparing students for the rigorous high school curriculum (Gamoran & Nystrand, 1994). Although giving low-achieving secondary students additional academic preparation in remedial courses may better position them to graduate, the pull-out

programs in high school, where graduation depends on acquiring credits in required courses, may actually harm students. Students spend their time on remedial, rather than required courses, making them less likely to accumulate enough credits for graduation (Gamoran & Nystrand, 1994). There is little research on whether remedial courses achieve their intent or whether they actually push low-achieving students out of the system prior to graduation (Calderon et al., 2005).

Furthermore, pull-out programs can often resemble a separation process known as "tracking" or ability grouping. This practice of lumping students together according to their ability levels can look like internal segregation. When posed as a remediation or intervention course, it may be easy to overlook the fact that tracking takes place when students are pulled out and grouped together to receive extra help or a less intensive curriculum. Many students assume their roles in these systems; thus, the labels stay with them throughout their school careers (Futrell & Gomez, 2008). These students often receive an inferior education that can lead to lower motivation to achieve. Shenk (2010) states "children develop only as the environment demands development" (p. 35). This idea supports those 1966 Coleman Report findings that suggest, "who sits next to whom does matter. Ambitions are contagious" (Rothstein, 2004, p. 130). So is the lack of such ambition. A great deal of research has been published on the negative effects of tracking on student achievement. Futrell and Gomez (2008) warn that remediation and intervention, if not examined closely, can maintain such systems under different names.

On the other side of the tracking issue is the growing interest in the phenomenon known as group efficacy. In relation to an associated construct of self-efficacy, group efficacy or collective efficacy is an intangible social construct that centers on the

physiological response caused as a result of the human brain's perception of the environmental stimuli which causes an automatic response (Bandura, 1994). "Efficacy enhances human accomplishment and personal well being" (Bandura, 1994, p. 1). Bandura (1994) suggests that the four main influences of efficacy include mastery experiences (experiencing success), vicarious experiences provided by social models, social persuasion, and reduced stress reactions (p. 4). If members of a group believe they can succeed, then the momentum of their collective thought may cause this success. Where schools are concerned, the power and knowledge of collective efficacy may be under-utilized.

Many districts across the nation use Title I, IDEA, and remediation funds to support supplemental remedial courses. In these situations, students are required to double up on the core subjects where they have fallen behind or failed to meet their state testing requirements. This is often referred to as "double-dosing" (Balfanz, Legters, & Jordan, 2004). The philosophy behind these courses is more time, more instruction, more support. However, there are several key problems with this approach. First, students who struggle with mathematic and reading skills often receive *more of the- "same"*- instruction, leaving them feeling doubly inept at the skill (Rose, 2009). Many students feel penalized by the double-block requirement and often find they fail not only one math course but two.

Another problem with double-blocking core course work is the issue of motivation toward school. These students lose valuable opportunities to take elective courses such as computer application, art, music, foreign language, and a host of other non-required choice classes. As a result of their poor achievement, these students lose

the opportunities for an enriched educational experience. They are not eligible to fill their schedules with elective courses that they enjoy or choose to pursue.

Push-in courses are relatively new in the remedial and intervention framework. These programs send an interventionist or, more often than not, a special education teacher into a regular classroom to help students who have fallen behind (Friend, 2008). The teacher is responsible to work one-on-one with students or in small groups re-teaching basic concepts and skills. Commonly utilized as a special education initiative to create the "least restrictive environment" for identified special education students (Scruggs, Mastropieri, & McDuffie, 2007), the co-teaching program has interesting possibilities for all students. As an intervention program, this push-in approach merits future research in its effectiveness.

Historically, remediation and intervention models have operated on the "wait to fail" philosophy (Fletcher & Vaughn, 2009). The idea behind this philosophy is that students are not identified to receive remedial or intervention services until they have failed (Bradley, Danielson, & Doolittle, 2005; Fletcher & Vaughn, 2009). For many students, this is too late to effectively put them back on track. Therefore, most school and school system uses of remediation and/or intervention have been reactive rather than proactive.

Response to Intervention, more commonly called RTI, is a whole-school initiative that is receiving considerable attention. This intervention design uses universal screening, progress monitoring, and multi-tiered instructional service delivery (Bradley et al., 2005). The beauty of this system lies in its individual approach to student learning from a school-wide perspective. It is the broadest of all intervention frameworks

incorporating a universal design for instruction (Buffman, Mattos, & Weber, 2009). This universal design is a tiered system of interventions that follows a delineated pathway to ensure student learning. RTI is a whole-school system approach that begins with a base quality instructional program with a guaranteed and viable curriculum for all students. Universal screening assessments, (including standardized multiple-response examinations and other CBM-like national and state tests), along with formal, informal, formative, and summative assessment measures are used to determine student progress in relation to learning standards – a systematic progress monitoring plan. Progress is monitored for all students, and those who do not make satisfactory gains are given additional instruction through tiered instructional levels. Careful records are kept on every student through progress monitoring, and research-based programs are utilized to help guide the intervention level needed by each student. When one tier of intervention is deemed inappropriate for student growth, a student's instructional tier is changed. Referral for formal special education evaluation is always an avenue, but the RTI framework seeks to catch students before they "fall through the cracks" (Bradley et al., 2005; Buffman et al., 2009). Although the components of RTI have been around for years, they were originally utilized only in special education classrooms. The new RTI movement shifts the responsibility for helping all students to the entire staff, and the approach now centers on the regular education classroom teacher.

The fact that interventions in the RTI framework happen before students fail is an appealing aspect of the design – the process is inherently proactive rather than reactive (Bradley et al., 2005; Buffman et al., 2009). The system is based on "structured, data-based problem solving, flexible service delivery, regular monitoring of

student progress on socially valid outcome measures, and a focus on the natural classroom contexts" (Bradley et al., 2005, p. 486). In theory, all students could be identified early, and interventions could be administered which prevent the loss of basic skills before students get caught up in a cycle of school failure. The effectiveness of RTI programs has yet to be established, but large scale experimental studies are being conducted in the form of randomized controlled field trials.

Several multi-tiered studies have been conducted at the elementary level with many showing positive outcomes. Stecker, Fuchs, and Fuchs (2005) suggest that inductive, data based individualization has been shown to be effective. There are fewer studies reporting findings at the secondary level. In a 2010 study with secondary students, researchers found disappointing results when examining Tier 1 and Tier 2 interventions (Vaughn et al., 2011). Vaughn and her colleagues (2011) focus on the complexities associated with middle and high school adolescents and the organization of the educational institutions at these levels. Academic deficits are well established when students reach the high school level, resources are often limited, and the structure of the school day often makes small groups of five or less difficult to manage. Even with these obstacles, the RTI program can and is working in several high schools across the U.S. Although the program looks different in every setting, large school districts in California, Iowa, and Washington have increased student achievement utilizing the basic tenants of the RTI framework (Buffman et al., 2009). The results of these studies will likely clarify intervention strategies that hold the most promise for students lacking basic skills (Bradley et al., 2005).

As with summer school programs, funding for this type of school-wide intervention may be a problem for educational leaders because much of the funding for these initiatives comes from federal programs such as Title I and IDEA. Using these funds often requires meeting specific eligibility criteria that has historically "made it difficult to blend resources to support school-wide intervention models" (Fletcher & Vaughn, 2009, p. 35). As Jerry Weast (as cited in Childress et al., 2009) suggests, "Unequal treatment is sometimes required to provide equal opportunity . . . more money, more talent, and more time [are] essential" for underperforming students (p. 33).

A meta-analysis can provide insightful information about the types and effectiveness of interventions (Calderon et al., 2005). The conclusions found in meta-analyses are based on multiple empirical investigations, not just one study. In their meta-analysis on learning skills interventions, Hattie, Biggs, and Purdie (1996) identify three types of interventions: cognitive, meta-cognitive, and affective. They describe cognitive interventions as those that aim to develop or improve task-related skills such as underlining, note taking, and summarizing. These skills can then be utilized by students to acquire new knowledge. Meta-cognitive interventions focus on self-management of learning. Interventions in this category teach students how to plan, implement, and monitor their own learning efforts. Meta-cognitive interventions also focus "on the conditional knowledge of when, where, why, and how to use particular tactics and strategies in the appropriate contexts" (Hattie et al., 1996, p. 100). Finally, effective interventions focus on non-cognitive skills such as motivation and self-

concept. Knowing which type of intervention is needed can help educators create systems that facilitate student success.

Hattie, Biggs, and Purdie's (1996) meta-analysis of remediation and intervention programs found that "most intervention does work most of the time [on average, with] . . . [an] effect size over all studies [of] 0.45; and a very respectable 0.57 for performance" (p. 128). Their conclusions are supported by clear empirical evidence suggesting the relative worth of different types of interventions. In their conclusion of the meta-analysis they state:

> improving learning is less likely to be achieved by targeting the individual in terms of a deficit model, which presupposes that the individual is lacking the right strategies and needs to be taught them or is using the wrong strategies and needs to have them removed. The results of this meta-analysis support the notion of situated cognition, whereby it is recommended that training other than for simple mnemonic performance should (a) be in context, (b) use tasks within the same domain as the target content, (c) and promote a high degree of learner activity and metacognitive awareness. (Hattie et al., 1996, p. 131)

In a meta-analysis of interventions for struggling readers, a group of researchers found that interventions provided by teachers were less effective than those provided by researchers. They attributed this discrepancy to the fact that researchers often implement more consistently and with greater fidelity than teachers do. Researchers also use researcher-developed outcome measures (Scammacca et al., 2007). Although somewhat disheartening for educators interested in implementing research-based interventions, the lesson learned from this study is beneficial. Teachers should follow implementation guidelines carefully when utilizing research-based intervention strategies. Fidelity to the program is necessary to reach outcome measures.

Program Research

A large number of studies on high school remediation, including ninth-grade remediation programs, can be found in the published literature, but they vary in their focus, methodological rigor, practical value and outcomes (Calderon et al., 2005). Although variations in programs make it difficult to isolate one "right" way to help ninth grade students find success in high school (if such knowledge could be acquired in the first place), reviewing the literature on existing and past programs can help school leaders develop sound remediation and intervention plans that are meaningful for their local context. The evidenced-based practices and procedures found in these reviews can assist educators who seek to develop programs that help ninth grade students successfully navigate the high school experience.

A working paper released in 2014 by Cook and his colleagues reports on the efficacy of an intervention program that addresses both the academic and behavioral issues associated with deprived youth in a predominantly African-American economically disadvantaged public school on Chicago's south side (Cook et al., 2014). The target population for the study consisted of 106 male youth enrolled in 9th and 10th grade during the 2012-2013 school year. Of the youth in the study sample, "99% were eligible for free and reduced price lunch and 95% were black, with average baseline reading and math scores that fell at the 26th and 22nd percentiles of the national distribution, respectively" (Cook et al., 2014, p.3).

The two-pronged intervention program examined in the study is based on the assumption that there is a "mismatch" between what schools provide for students and what students need in order to be successful. If a student's skill level is at one end of the

continuum and the material being taught is at the other end, then students are not prepared to learn, understand, or value the lessons being presented to them. This idea of an "academic mismatch" suggests that "improving the quality with which grade-level material is taught, or the incentives" for students to learn it may not be the best way to address academic achievement (Cook et al., 2014, p.1).

The alternative to this "academic mismatch" has often been tracking or grouping students based on achievement level. This form of tracking has sometimes been seen as "dumbing down" the curriculum and reducing the opportunity for upward mobility later in a student's academic career (Cook et al., 2014; Futrell & Gomez, 2008). Although there are negative issues regarding the tracking of students, there is some empirical evidence that learning is higher in "tracked" schools "for both students in the top and bottom halves of the achievement distribution" (Cook et al., 2014, p. 7), suggesting that tracking students may reduce the "academic mismatch" that occurs in many classrooms (Cook et al., 2014; Duflo, Dupas, & Kremer, 2011).

To close this "mismatch" without creating the opportunity barriers that traditional tracking might produce, the two-pronged intervention being used in this study delivers intensive individualized instruction in two-on-one math tutoring sessions for one hour each day to students at the bottom of the achievement distribution. The theory is that students who are brought closer to grade skill level then regular classroom instruction is more attainable. The cost effectiveness of such individualized instruction can be problematic for educational leaders so the designers of this intervention create a learning environment based on the Match Model (Cook et al., 2014). This model recognizes that the set of skills needed for tutors is different than that of a classroom

teacher. As a result, tutors were drawn from a larger pool of people with strong math skills who were willing to spend a year in public service for relatively low wages. These tutors (mostly college graduates with strong math and interpersonal skills but with no formal teacher training) worked with two students for one hour. During the first half hour, students were helped with their current classroom lessons, and then for the second half hour, the students worked on remedial skill development based on their own personal learning gaps. Formative assessments were utilized to guide curriculum adjustments for each student's changing needs.

The community in which the students in this study reside is both racially divided and economically disadvantaged and is considered one of the most dangerous communities in Chicago (Cook et al., 2014). To mitigate the effects of the non-academic barriers associated with student success, the second prong of the intervention focused on social-cognitive skill training with a program called "Becoming a Man" (BAM), which was developed by a Chicago-area non-profit organization. The program consists of 27 one-hour sessions per week delivered in a small group (no more than 15 students) setting with an average student-adult ratio of 8:1. Students in this intervention were allowed to miss an academic class, which contributed to the attendance rate. College-educated adults without any specialized training delivered the program through a curriculum manual. The training followed the principles of cognitive behavioral therapy, and focused on such areas as "generating new solutions to problems, learning new ways of behaving, considering another's perspective, thinking ahead, and evaluation consequences ahead of time" (Cook et al., 2014, p. 11). The program is

engaging to the students and utilizes real life situations to construct appropriate behavioral reactions.

Although poverty and family background are documented correlates of student success in school (Coleman et al., 1996; Celano & Newman, 2008; Kirp, 2011), the outcomes of this research study suggest that high school intervention programs that address the "mismatch" in both "non-cognitive" and "cognitive" skills can increase student success as measured by math scores and expected graduation rates. Researchers reported that participation in this two-pronged intervention increased math scores by 0.65 of a control group standard deviation (SD) and 0.48 SD in the national distribution while also seeming to have increased expected graduation rates by 14 percentage points (46%). Second, the cost of the approximately $4000.00 per participant intervention appears to "yield larger gains in adolescent outcomes per dollar spent than many other intervention strategies" (Cook et al., 2014, p. i). These results are encouraging considering that existing empirical evidence is ambiguous in the outcomes recorded from secondary school interventions. The study poses as many questions as it answers, but it does give options and resources for educational leaders looking to correct the "mismatch" between educational practice and student needs.

In 2003, the Office of Vocational and Adult Education (OVAE) within the U.S. Department of Education tasked MPR Associates, Inc. to review research studies that measured the effect of ninth-grade remediation programs on student achievement (Calderon et al., 2005). MPR, Inc. utilized the What Works Clearinghouse (WWC) Study Design and Implementation Assessment Device (DIAD) to complete their review of the research. The authors gathered studies of the effectiveness of educational

interventions over a ten-year time span from 1995 to 2005. They then reviewed the studies with the strongest designs and reported on the strengths and weaknesses of those studies against a specific set of Evidence Standards. The research review looked at program characteristics associated with increased student academic achievement, attendance, and dropout rates (Calderon et al., 2005, p. vii).

The task force found that few of the studies reviewed met the minimal criteria for sound quantitative evidence outlined in the WWC's Study DIAD. Although many of the program components stressed the same interventions, few of the studies suggested specified causal linkages and tests of these linkages (Calderon et al., 2005). Ten studies did meet the WWC's standards. Four of those ten studies utilized academic support services as a reform strategy. These four studies indicate that supplemental academic services were associated with improvements in student learning; although in some programs, positive effects declined over time (Calderon et al., 2005, p. ix).

The most comprehensive program reviewed by MPR, Inc. was Upward Bound, a federal program designed to help disadvantaged students enter and succeed in college. The Upward Bound program serves a large population and uses a variety of academic interventions. Components of the program include tutoring and study skills, Saturday enrichment classes, ACT/PSAT workshops, a six-week summer enrichment program, and college preparatory workshops (Myers & Schirm, 1999; Calderon et al., 2005). As a federally funded program, Upward Bound has been reviewed and evaluated by many different groups in an effort to determine its effectiveness. Several of the evaluation studies have tried to determine the program's effectiveness by measuring how well the program met the objectives of increasing high school graduation rates, increasing the

rate of entry into a post-secondary institution, and generating skills and motivation necessary for students to succeed in education beyond high school (Burkheimer, 1976; Pyecha & Berls, 1976). Most of the evaluations on the Upward Bound program have been quasi outcome-based program evaluations. These program evaluations, which include both effectiveness and impact evaluations, have tried to determine the extent to which the program has met its goals or whether or not the program has made a difference compared to not having a program (Schalock, 2011).

Evaluation studies on the program between 1965 and 1999 support the program's ability to provide "supportive, advocacy, and advisory services that facilitate entrance to post-secondary enrollment" (Burkheimer, 1976). But in the late 1990s, a national study by Mathematica Policy Research did not portray Upward Bound positively. Myers and Schirm (1999), authors of the study, collected longitudinal data on approximately 1,500 students randomly assigned to treatment groups and 1,300 students assigned to control groups from 67 Upward Bound projects across the country. Researchers collected base-line data and made assignments to treatment or control groups from 1992 to 1994 with follow-up surveys of both groups in 1994 and 1996. Student attitudes, school experiences, academic achievement, in-school behavior, grade point averages, credits earned, and high school transcripts were used in the program assessment (Myers & Schirm, 1999). Using random assignment and controlling for student ability, researchers found that on average, lower-performing ninth-grade students earned more credits throughout high school than those in the control group. They also reported that participating in Upward Bound reduced the probability that all students (higher and lower-performing) would drop out before graduation, with gains

substantially larger for students at greater risk (Myers & Schirm, 1999). But the study also found that Upward Bound had a limited impact on students during high school. There was no significant impact on behavior, grades, or credits earned (Myers & Schirm, 1999). The positive findings from evaluations of the Upward Bound programs do not make up for the fact that most participants realized little academic benefit (Calderon et al., 2005).

In 2002, the Pell Institute for the Study of Opportunity for Higher Education opposed the Mathematica (1999) research, citing problems with the design of the study. The key issue in question was the self-select student base used in prior studies versus the randomization in the 1999 Mathematica study. Although neither the Pell Institute nor the Mathematica study can be considered a true pseudo- evaluation, an evaluation that promotes invalid or incomplete findings for a political or public relations purpose, both the Mathematic and the Pell Institute studies have characteristics of a pseudo-evaluation. Stufflebeam (2001) defines this as a study in which

> evaluators and their clients are sometimes tempted to shade, selectively release, or even falsify findings. While such efforts might look like sound evaluations, they are aptly termed pseudo-evaluations if they fail to produce and report valid assessments of merit and worth to all right-to-know audiences. (p. 13)

The Pell Institute completed a public relations-inspired study that sought to justify funding for the program. In this case, their primary purpose was to "acquire and broadcast information that provided a favorable impression" of the Upward Bound program (Stufflebeam, 2001, p 13).

By reviewing the literature on the Upward Bound studies, educational leaders can see that each program operates separately and has separate design elements. Although there are national objectives and guidelines, each chapter develops initiatives

that meet the individual needs of the community it serves (Burkheimer, 1976; Cahalan & Curtin, 2004). With Upward Bound programs, there is not a single strategy or intervention, or even two or three interventions that are clearly articulated (Burkheimer, 1976). Each program is different, but two components are evident in every Upward Bound program: the summer program and the academic year program (Cahalan & Curtin, 2004).

The Upward Bound summer programs vary in their offerings and expectations. Some use compensatory education curriculum that models high school courses. Others create their own curriculum. Many Upward Bound summer programs utilize university resources and real-life applications, while others offer more options for students. Instead of English or math, some programs offer public communication or logic of mathematics (Cahalan & Curtin, 2004; Hunt, 1967; Myers & Schirm, 1997).

The second component of each Upward Bound program is the academic curriculum follow-up course. These courses are just as varied as the summer programs that precede them (Hunt, 1967). Some Upward Bound follow-up programs offer tutoring after school or on Saturdays. Others focus on standardized testing and career counseling. Other offerings found inside the Upward Bound programs include individualized counseling to address academic needs, to help with college application and financial aid opportunities, and to guide students through the post-secondary decision-making process. Still other programs provide cultural opportunities (Myers & Schirm, 1999; Cahalan & Curtin, 2004).

Although several program studies found evidence that Upward Bound was effective in improving self-esteem and motivation toward enrollment in post-secondary

education, they also found that the program did not significantly impact academic achievement for students (Burkheimer, 1976; Moore, 1997; Myers & Schirm, 1999). These findings are attributed to the varied strategies and program designs of each of the Upward Bound program chapters. Therefore, program evaluations would provide more feedback and empirical evidence if applied to the specific organizational and individual outcome measures for each separate chapter of Upward Bound.

Talent Development High School's ninth-grade instructional program is also an intervention that has attracted attention of educational leaders. The model's foundation is built on research conducted by Johns Hopkins Center for Social Organization of Schools. One study by Kemple, Herlihy, and Smith (2005), a quasi-experimental research design, met the WWC's evidence standards with reservation. Their study included multiple cohorts of students entering ninth-grade from eleven Philadelphia high schools. Five of the schools were Talent Development High Schools and six were matched comparison schools. Outcomes of ninth graders who entered Talent Development High Schools in the years immediately after the program was implemented were compared with the outcomes of ninth graders from the same schools in the years just before the programs were implemented (Kemple et al., 2005). This one study found potentially positive effects on progressing in school (What Works Clearinghouse [WWC], 2007).

Talent Development High School's program model is a whole school reform that is based on the concept of smaller learning communities – a ninth-grade academy for freshmen and career academies for the upper grades. The foundation of the model is built upon four pillars: teacher teams and small learning communities; specialized

curriculum and coaching; tiered support for students; and a can-do climate for students and staff (www.talentdevelopmentsecondary.com).

The ninth-grade academy is a self-contained school-within-a-school with a core group of four to five teachers who teach the freshmen students. Ninth-grade students receive double doses of mathematics and English instruction and are scheduled into a 4x4 block schedule. Teachers receive support and professional development. They have common planning time to address student needs and to work collaboratively on curricular and cross-curricular lessons (www.talentdevelopmentsecondary.com).

In the Talent Development High School's ninth-grade programs, underperforming students, attend core intervention courses in English and math. Strategic Reading, a first semester English intervention, focuses on skill development in reading fluency, writing, and comprehension. The course provides opportunities for students to work collaboratively on novels and plays while also allowing students to choose their own activities from classroom libraries. Transition to Advanced Mathematics is the first semester math intervention course. It covers five pre-algebra units with an emphasis on problem-based and contextual teaching and learning (WWC, 2007).

The researchers looked at several outcome measures in both the treatment and control schools. The Comprehensive Test of Basic Skills (CTBS)-5 Terra Nova achievement test in reading and mathematics was reviewed in February and again in May of the 1999-2000 school year. Other data and measures included opinion surveys completed by teachers on the experimental schools and students in the control and treatment schools, the schools' performance on State Functional exams, students' scores

on the eighth-grade CTBS test, and Algebra I pass rates calculated from school records. The evaluators estimated a number of least squares regression models comparing student scores on the February and May (ninth-grade) CTBS assessments. For both reading and mathematics models, students' eighth-grade test scores were used to control for prior achievement (WWC, 2007).

In a separate study on the Talent Development High School, Balfanz, Legters, and Jordan (2004) found that students receiving instruction in the context of a Ninth-Grade Success Academy significantly outperformed students in control groups in both their overall achievement level and performance gains. The evaluation design used in the study, however, lacked random assignment. Students at three high schools in the intervention group were matched to similar high schools in Baltimore based on student demographic characteristics (Balfanz et al., 2004).

In yet another study, Kemple and Sipe (as cited in Calderon et al., 2005) also analyzed data on 1,764 students at the end of the eighth or ninth grade who applied for enrollment in one of nine Career Academies, the school-within-a-school for grades 10-12. The nine sites involved in the study had fully implemented the Career Academy model. Half of the applicants were randomly assigned to the treatment program and the remaining students were assigned to the control group. Students were then categorized as being at high risk, medium risk, or low risk of dropping out of school. The evaluation followed participants and control group students through high school until just before their expected date of graduation. When averaged across all students, the outcome of academy participation was inconclusive (Calderon et al., 2005). However, high-risk students in the treatment group had lower dropout rates and higher average attendance

rates. They were also more likely to earn the mandatory number of credits to meet district graduation requirements compared to high-risk students in the control group. Interestingly enough, just like the Upward Bound program, there was no significant difference in standardized tests in reading and mathematics between the treatment and control group (Calderon et al., 2005).

Supplemental service programs are another form of interventions being utilized in schools across the nation. Gamoran, Porter, Smithson, and White (1997) looked at the effects of transition mathematics courses used to increase the rigor of instruction for ninth-grade students. Random assignment was not utilized in their study design, but differences in treatment groups were statistically controlled using hierarchical linear modeling. The rate of increase in test scores for students participating in treatment groups was higher than for students in general track courses but lower than for students taking advanced coursework. They also found that achievement growth was greatest in classes with more content coverage, suggesting that providing students with more rigorous curricula may be an effective way of improving student outcomes (Gamoran et al., 1997).

In another study, Woodruff, Schumaker and Deshler (2002) completed an evaluation of the effect of a Word Identification Strategy used to assist ninth-grade students reading below grade level. Their study consisted of 124 students. Sixty-two students in a treatment school and 62 students matched by demographic characteristics such as sex, age, race, and educational characteristics including grade level and grade-equivalent reading scores were used where possible. The Slossen Diagnostic Battery was administered to both groups at the start and end of the research period. A pull-out

procedure was utilized for students in the treatment group. They were taken out of their ninth-grade English classes in small groups to receive a specialized approach to decoding multi-syllabic words, known as Word Identification Strategy instruction. The control group students attended their normally scheduled classes (Woodruff et al., 2002). Upon completion of the post-test, the researchers found that after the four-to six-week intensive academic intervention, treatment students had gains in reading decoding as large as six grade levels. Male students in the treatment school had average gains in reading decoding ranging between 2.8 and 3.8 grade levels, while female students had gains ranging between 2.8 and 3.4 grade levels (Woodruff et al., 2002). African-American students made the largest gains and Hispanic students made the lowest mean gains. Students in a matched comparison group evidenced only minimal changes in performance. Although the study demonstrates that the intervention was effective, results were limited because students were not randomly selected into treatment and control groups, and the study tested only the short-term achievement gain of students (Woodruff et al., 2002).

In the late 1990s, California and New York implemented "transition" math courses to prepare low-achieving ninth-grade students for the college-prep math courses required for graduation in those states (Calderon et al., 2005). These transition math courses were developed to prepare students for rigorous college-prep math while at the same time remediating skill gaps in low-performing students. Although earlier studies suggested that tracking, the homogenous grouping of low-ability students in low-level math and English courses, had resulted in lower performance for low-ability students

(Gamoran & Nystrand, 1994), California and New York's transition courses sought to raise the performance of low-achieving students without eliminating rigor.

Gamoran, Porter, Smithson, and White (1997) evaluated the effects of these transition mathematics courses offered in California via the University of Chicago School Mathematics Project (UCSMP) and in New York via Stretch Regents. A quasi-evaluation, the researchers were interested in the impact such courses have on student achievement and whether the goal of increasing rigor for low-achieving students was accomplished. Mathematics courses were analyzed using a three-level hierarchical linear model based on data from 882 students. Of those students, 498 were tested three times while 384 students were tested twice in 48 mathematics classes in seven high schools. Random assignment to each type of instruction was not utilized, but statistical controls were applied to hold constant differences in student ethnicity, prior math grades, and socioeconomic status (Gamoran et al., 1997). Researchers measured individual achievement growth over time for each student, differences between students within classes, and estimated differences between classes in order to determine the differences among classes in average achievement growth.

The study found that students in the transition math course performed a little better than those in general track math classes but a little worse than students in college-prep math classes on a math achievement test based on the National Assessment of Educational Progress (Gamoran et al., 1997). The transition math course failed to advance students to the college-prep level. When remedial courses fail to increase student achievement, students continue to be at risk of academic failure. Although not entirely successful, the transition courses were partially successful in meeting the goal

of improving the rigor and quality of mathematics instruction for low-performing, low income students (Gamoran et al., 1997).

An interesting evaluation of a large-scale reform effort at two high schools was completed by the Manpower Demonstration Research Corporation (MDRC) in 1999. MDRC both developed and evaluated the reform effort known as Project Transition. Built on three reform strategies, Project Transition was created to change the ninth grade environment in order to help students transition to the high school. These reform strategies include student-teacher clusters, extra time for teacher collaboration, and a teacher "coach" to aid in teacher development (Quint, Miller, Paston, & Cryton, 1999).

Project Transition was implemented in two demonstration high school sites, Pulaski High School in Milwaukee, Wisconsin, during the 1995-96 and 1996-97 school years and Schlagle High School in Kansas City, Kansas, during the 1996-97 school year. Both of the schools were located in urban school districts, and both reported similar attendance, grades, and student characteristics. All the components of the program were implemented at Schlagle High School, but Pulaski High School only partially implemented the program (Quint et al., 1999).

The program design consisted of four core teachers, one math, one English, one science, and one history, who served approximately 120 students. These students shared many of the same classes. The evaluation used a cohort comparison design. The treatment group consisted of students who were ninth-grade students when Project Transition was implemented, and the control group consisted of ninth-grade students who had been enrolled before the Project Transition was implemented. Treatment group outcome measures were assessed against outcomes for the control group. Outcome

measures included school records and student surveys. The outcomes varied by schools as did implementation fidelity and qualitative differences in program implementation at both sites (Quint et al., 1999).

At one of the high schools, Project Transition improved the quality of the relationships that program participants had with peers compared to those of the control group, but it had no effect on other measurable student outcomes. In the second school, program participants reported improved relationships with teachers, increased feelings of autonomy, and increased self-reported engagement, all of which were significantly higher than for members of the control group. There were, however, few positive academic benefits (Quint et al., 1999). A small increase in credits earned was found in one school, with effects greatest for those participants who had relatively low attendance rates in middle school. No statistically significant differences were found between program participants and control group members on attendance rates or grade point averages in either school. This study lasted only one year at Schlagle High School and two years at Pulaski High School. Researchers suggest that the program may show more positive results over a longer period of time (Quint et al., 1999).

Although summer programs date back to the late 1880s (Fiore, 2005), no standard program designs exist, and limited research demonstrating that summer programs can meet their goals is available. Federally funded initiatives, such as Title I summer programs, have increased summer school opportunities for disadvantaged students. Most of these programs focus on reading and math in an effort to help low-performing economically disadvantaged students catch up. In a research synthesis using both meta-analytic and narrative procedures, Cooper, Charlton, Valentine, and

Muhlenbruck (2000) integrated the results of 93 evaluations on summer school programs from 1966 through 1998. The results suggested that summer schools that focused on the remediation of deficit skills had a positive outcome. Summer programs that focused on acceleration of skills had the same increase as remediation programs. Middle-class students experienced more gains than disadvantaged students. Finally, summer programs that utilized small-group or individualized instruction resulted in the highest academic gains (Cooper et al., 2000).

The authors also made inferences from the synthesis of the 93 evaluation studies. First, programs that required parent involvement had greater gains than those without that involvement. Also, math achievement showed more gains than reading (Cooper et al., 2000). The authors suggest that this result occurs because math relies on practice and drills that are not normally done outside the school day. Finally, the authors inferred that achievement gains made in summer might diminish over time. The highest gains from the research reviewed were found in elementary summer programs and in high school programs focusing on credit recovery or course replacement (Cooper et al., 2000).

One key point surrounding the development of summer school programs is that they are costly to school districts. The School District of Philadelphia invested $18 million dollars in the creation of a mandatory summer remediation program know as S.L.A.M. This program was intended to boost the academic achievement of students in grades 1-10 who had failed reading, math, science, or social studies (Black, 2005). In a review of the Philadelphia summer programs, the author found that some of the summer school programs were successful while others were not. Black (2005) suggested several

reasons for the variations in summer program success. First, summer programs are often an afterthought to the regular school program, resulting in poor planning and little connection to the regular curriculum. Second, the amount of time students spend in the summer sessions matters. Black (2005) found that some summer programs had classes in session for 315 hours compared to other schools that only had classes in session for 15 hours. According to Black (2005), the typical length of all the summer programs reviewed was approximately 100 hours. Scheduling the smallest gap of time between regular school end and the beginning of a summer program can also have a positive effect on reducing the academic loss that can occur during the summer break (Black, 2005). Other characteristics that made for a strong summer program included focusing on math and reading, hiring good teachers, having adequate and continued funding, using proven and innovative teaching methods, and focusing on student achievement (Black, 2005).

In a more recent program evaluation, The Office of School Innovation and Best Practices conducted an evaluation on the 2010 Philadelphia S.L.A.M. program. Using a framework from Johns Hopkins University, the evaluators developed research questions and associated tools to guide the process. A true-evaluation, the design utilized a mixed-methods process to help highlight the structures, processes, and outcomes associated with the 2010 program (Office of Philadelphia Accountability, 2011).

Surveys were administered to students, administrators, secretaries, teachers, counselors, and teaching artists from the Philadelphia Arts in Education Partnerships during the final week of the summer program. Other stakeholders such as parents, guardians, staff from central office, and out-of-school provider agencies were invited to

complete phone and on-line surveys. Enrollment and attendance data as well as course grades were utilized. Scores on the May 2010 and October 2010 Reading and Math Predictive Benchmark Assessments were analyzed to assess the extent to which summer learning loss was minimized. A comparison across grade levels was utilized by standardizing scores from May to October by converting them to Normal Curve Equivalents (NCEs) (Office of Philadelphia Accountability, 2011).

The analysis suggested that the 2010 S.L.A.M. Program was effective in minimizing summer learning loss. Program participants who attended a minimum of 16 days evidenced significantly greater gains in reading and math achievement than peers who did not attend the summer programming. The summer program at high school sites also allowed students to earn credits toward graduation. Intentionally focused research questions addressed accelerated learning, proactive approach to summer learning, holistic view of youth development, advanced collaborative planning, strong empowered leadership, extensive opportunities for staff development, and strategic partnerships (Office of Philadelphia Accountability, 2011).

The S.L.A.M. evaluation revealed positive outcomes on most qualitative data with several concerns noted. Teachers reported that the pacing of the summer curriculum was a concern. Principals reported that they had not received or did not have access to all needed materials at the beginning of summer, and that adequate staffing was unavailable for the number enrolled in the programs. High school students stated that delayed receipt of their end-of-year report cards limited their knowledge of courses where remediation was needed, and counselors indicated that enrollment processes were not as efficient as intended. “The greatest challenge identified was clarity and timing of

communication of necessary information" (Office of Philadelphia Accountability, 2011, p. 9). Finally, teachers responded that the training offered prior to the start of the summer program did not adequately prepare them to effectively deliver the curriculum (Office of Philadelphia Accountability, 2011).

This evaluation illustrates the district's commitment to continued improvement of the program. Rigorous evaluations of their summer learning programs can lend valuable insight into what is working, what is not working, and what can be improved. In a prior evaluation of the program, researchers determined that few reliable measures were available to access academic gains. From that evaluation, the district added the Predictive Benchmark Assessments to be used as a tool through which a comparison between participants and non-participants could be established (Office of Philadelphia Accountability, 2011). Clear recommendations were written in the 2011 evaluation, and the district plans to continue with on-going evaluations of the S.L.A.M. Program.

In a three-year study that explored the effects of a multiyear summer school program, Borman and Dowling (2006) found that a voluntary summer school program could help prevent students from falling behind in school. Their research also suggests that voluntary summer programs could have a positive impact on students' long-term academic performance (Borman & Dowling, 2006). Baltimore's Teach Baltimore Summer Academy is a seven-week program that provides learning opportunities in the areas of reading, mathematics and science as well as music, drama, and foreign language to high school students from high poverty communities (Borman & Dowling, 2006). Designed as a preventative initiative to decrease summer learning loss, the seven-week course provides breakfast and lunch to participants. Each day begins by

discussing the week's goals, followed by engaging activities, including reading, literature, physical, and enrichment in the arts and sciences. The program includes field trips and experimental learning to maintain student interest (Borman & Dowling, 2006).

Utilizing a randomized field trail, the longitudinal study utilized the outcomes from the treatment group which consisted of 438 students from high-poverty schools contrasted against 248 children randomized into a no-treatment control group (Borman & Dowling, 2006). The evaluators found that parental buy-in was needed to sustain a student's attendance across the three-year participation. The program components included an alignment of the summer curriculum with the regular school year curriculum. The weekly field trips and daily recreational activities were embedded into the course to keep students interested in the program. The results of the evaluation were positive for the program. Students who attended the summer academy at an above average attendance rate across two or more of the three summers, scored higher on the final posttests than did their control-group counterparts (Borman & Dowling, 2006).

Chicago's Summer Bridge intense remedial program began in the 1996-97 school year. Designed as a remediation program to help students join their peers on grade level, the program focuses on the skills needed to pass the mathematics and reading portions of state mandated tests (Stone, Engel, Nagaoka, & Roderick, 2005). Since its beginning in 1996-97 through the spring of 2000, about one-third of third, sixth, and eighth-grade students in Chicago did not meet the ITBS scores for promotion to the next grade level. Ninety-seven percent of those students were African-American or Latino (Roderick, Engel, & Nagaoka, 2003). All eighth-grade students scoring below the cutoff point are required to attend the summer program for four hours a day for

seven weeks for a total of 140 hours of instruction. Third and sixth-grade students attend five days per week for three hours a day for six weeks. Although the summer bridge program is required, not all low-performing students choose to attend.

The 1997-2000 evaluation of Chicago's Summer Bridge Program set out to determine the program's short-and long-term impacts, how these impacts varied for student subpopulations, and what experiences teachers and students had in the program (Roderick, Engel, & Nagaoka, 2003). The results of the evaluation showed a substantial gain in test scores for attendees (Stone et al., 2005). Pre-and post-test comparisons of student performance, cohort analyses, and regression discontinuity design were used in the evaluation of the Summer Bridge program. The results indicated that the program was effective in the short term across demographic and achievement groups in producing test score gains (Roderick et al., 2003). Over the four-year period (1997-2000), eighth-graders on average increased their ITBS scores by approximately six months in reading and nearly five months in mathematics. Approximately half the eighth-graders involved in the program met the promotional cutoffs in both subjects by the end of the summers (Stone et al., 2005).

In the second phase of the evaluation, a non-experimental design was utilized to determine student perceptions of the program (Stone et al., 2005). Student surveys and interviews revealed three-fourths of students attending the summer program preferred summer school to the regular school year. They reported working harder and learning more in the summer. Students felt their teachers were more available and spent more time helping them understand the content during the summer program. Most students

reported that they found the summer program fun and interesting. Only 6 of 48 students reported a dislike for the program (Stone et al., 2005).

However, critics of the Chicago Summer Bridge Program claim it was an expensive failure. A $34 million dollar expenditure per summer in 1997, the program has served over 21,000 students in 400 elementary schools (Roderick et al., 2003). Buchanan (2007) suggests that even though the Chicago Summer Bridge Program met its program goals, students remain academically behind their classmates because they receive short-term knowledge rather than long-term skills.

Few positive outcomes were reported in Grossman and Sipe's (1992) evaluation of the Summer Training and Education Program (STEP), that targets at-risk youth between the ages of 14 and 15 through the former federally funded Job Training and Partnership Act. STEP has four focal points: academic remediation, life-skills opportunities, work experience, and school-year support. Using a randomized controlled trial research design, Grossman and Sipe (1992) looked at the effects of STEP at five sites in four states. Three thousand youth were randomly assigned to treatment and control groups. The treatment group received focused instruction during the summer before their freshman year, continuing through the following academic year and summer. They were provided approximately 90 hours of instruction in basic remediation reading and math skills, 18 hours of life skills opportunities, a curriculum which focuses on issues related to substance abuse and sexuality, and 80 hours of work experience. Students in the treatment group were paid for their attendance in school and their employment. Control group members were provided a one or two summer job opportunity in a federally funded program. Overall the control group spent more time

working than the treatment group (Grossman & Sipe, 1992). Evaluators used several outcome measures including performance on pre and post tests of the reading and mathematics subtest of the Intermediate Level Metropolitan Achievement Test (MAT) Survey Battery. Student youth surveys, follow-up interviews, and student transcripts were also used as outcome measures (Grossman & Sipe, 1992). Although the treatment group showed gains in academic skills and personal behaviors, these improvements were not sustained over time (Grossman & Sipe, 1992).

Caldwell (2007) studied Bearcat PRIDE, a ninth-grade transition program for at-risk students. The Bearcat PRIDE program began in 2003 in Virginia High School in Bristol, Virginia. It was created to address freshman retention, attendance, discipline, core class failures, and assessment failures. Since its beginning, the program has undergone a series of changes, including the addition of a summer program, a two-day orientation for students and parents, single sex classrooms in English and algebra, mandatory study skills courses, and integration into elective courses with other students at the high school. Caldwell (2007) used a case study approach to answer three specific questions related to the effectiveness of the Bearcat PRIDE program over the first three years of its existence. A quasi-evaluation, Caldwell (2007) used archival data to explore the differences in three Bearcat PRIDE treatment groups. It is important to note that the changes in the program over the years were not accounted for in this study.

The treatment groups consisted of ninth-grade at-risk students who had been identified by their eighth-grade teachers, counselors, and administrators during each of the first three years of Bearcat PRIDE. These students attended a school-within-a-school design where their English and algebra classes were taught on a modified block

schedule - each of the two courses lasting 100 minutes in length while the other academic and elective courses were taught in 50-minute increments. Students in the Bearcat PRIDE program also received instruction in a study skills class to help supplement instruction and to develop study skills (Caldwell, 2007).

Caldwell used the eighth-grade (pre-treatment) and ninth-grade (post-treatment) measures to determine the results of his evaluation. The outcome measures included pre- and post-grade point averages, attendance and tardy records, core course failures, Standard of Learning reading, discipline records, and extra-curricular involvements. Caldwell's (2007) results suggest that students in the Bearcat PRIDE Program showed greater success in academic performance, reduced disciplinary actions, increased school attendance, and increased participation in extra-curricular activities. Caldwell (2007) recognized that long term tracking of participating students would be necessary to see how their graduation rates would be affected.

Although there are a number of remediation strategies and intervention programs designed to help low-performing ninth-grade students transition to and succeed in high school, few scientifically rigorous studies that can be replicated across studies of similar design exist. The "human" component of this equation will always make this a difficult task. Educators and researchers can, however, learn from the research literature that exists.

Evaluations can inform decisions, provide accountability, defend current practices, and involve all stakeholders in understanding a program's base-line operation, effectiveness, impact, and ultimately its value, or worth. Stufflebeam (2001) suggests that "the continuing attempt to address questions of merit and worth is essential for the

advancement of societal programs" (p. 91). Education in the form of supportive schooling structures must continue to advance and grow, and educators can improve the practices and experiences that affect each student by continuing to evaluate their programs and by reading research in the field.

Forms of Capital and Education

Americans believe in the ideal that all children, given the opportunity, can learn and graduate high school ready to compete equitably in the nation's democratic society. However, "the fact that children's skills can so clearly be predicted by their race and family economic status is a direct challenge to our democratic ideals" (Rothstein, 2004, p. 1; see also Alexander et al., 2014). "After all, how much money a family has, or the color of a child's skin, should not influence how well that child learns . . . If teachers know how to teach . . . children should be able to learn" (Rothstein, 2004, p. 2). While it is true that all children can learn, the question becomes what causes that learning to occur? And when does that learning occur? Is there some truth in the statement, "Everyone who goes to Stanford has been winning his whole life"? If so, how can educators ensure that all students are provided an equitable rather than equal opportunity to learn and to become a winner?

The reality is clear. "Schools reproduce social inequality" (E. C. Brooks as cited in Rothstein, 2004, p. 26), and social inequality creates unrest and division in society. Educators must understand this if they are to create programs that work to bridge the gap that sociological forms of capital create. Social capital, in its broad sense, has many diverse definitions. Lesser (2000) defines it as "the wealth (or benefit) that exists because of an individual's social relationships" (p. 4). Putnam (2000) defines it as

"connections among individuals-social networks and the norms of reciprocity and trustworthiness that arise from them" (p. 19). For Lin (2001), social capital is about investing in social relationships to acquire concrete goods and services, such as job promotions or a higher income. Regardless of which definition social capital takes, the bottom line - "who you know" and "what you know from who you know" make a difference (Coleman, 1966; Bourdieu, 1986).

Sociological forms of capital affect how students learn. It is not enough to close achievement gaps among students; educators must create systems and programs that close sociological opportunity gaps as well (Rothstein, 2004). Testing accountability draws attention to achievement gaps measured by single assessment points such as math, reading, social studies, and science. This form of accountability focuses attention away from non-cognitive skills such as persistence, dependability, motivation, self-discipline, and ability to work with others. These skills, often developed in children as a result of the economic, social, and cultural capital their families possess (Rothstein, 2004), are as important, and in some cases more important, to children's learning potential and their ability to be a fully participating citizen of the United States.

Many Americans today are concerned about the breakdown of the family unit and the loss of the democratic ideals on which the nation was built. This is not a new problem. The American Progressives of the early 20th Century also expressed concern over the erosion of families, the breakdown of communities, impending societal ills, and civic disengagement. It was during this Progressive Era that the term "social capital" found its way into the literature of the period (Woolcock, 1998).

An early contributor to the dialogue surrounding social capital was Glen Loury (Lesser, 2000). His discussions centered on racial economic inequity among blacks. He believed that social position was a major variable in explaining the difference in human capital and income. These disparities were largely influenced by external social forces beyond an individual's control (as cited in Lesser, 2000). Mark Granovetter's (1973, 1985) analysis of social network ties contributed to the social capital literature still referenced today. His identification of *weak ties* described how connections outside of one's family and close friends could benefit a person. These *weak ties* served as a pathway for accessing the social and economic opportunities that exist in society.

Social capital gained more momentum in 1986, when French sociologist Pierre Bourdieu wrote an essay on the different forms of capital. Bourdieu's (1986) thesis asserted that economic capital did not completely center on the product of market exchanges and rewards. He expanded the concept of capital to include cultural capital and social capital. In his definition, cultural capital referred to family, class, and social credentials (Bourdieu, 1986). Social capital included resources that were embedded in institutionalized relationships (class) that consisted of bounded networks, characterized by unity, obligation, and active investment by all of its members in relationships that would produce material and symbolic rewards (Bourdieu, 1986). Bourdieu brought attention to the fact that all forms of capital are so intertwined that each serves the other:

> *economic capital*, which is immediately and directly convertible into money and may be institutionalized in the forms of property rights; as *cultural capital*, which is convertible, on certain conditions, into economic capital and may be institutionalized in the forms of educational qualifications; and as *social capital*, made up of social obligations ('connections'), which is convertible, in certain conditions, into economic capital and may be institutionalized in the forms of a title of nobility. (p. 3)

If all of these forms of capital work together to position people and opportunity, then schools cannot operate in the best interest of all students without a clear understanding of this phenomenon. Schools function under the auspices of accountability, but the achievement gap cannot be truly measured on standardized tests that assess only basic skills. If national leaders and educators are not careful, the policies and reforms put in place to help achieve equity may have unintended results. The college-prep curriculum is one example (Allensworth et al., 2009).

When the 1983 report *A Nation at Risk: The Imperative of Educational Reform* was released, many schools adopted the rigorous standards of the college prep-curriculum despite the 1966 findings of the Coleman report. The relationship between human and social capital seemed to be missing from the standards established by the *Nation at Risk* report. Whether or not those standards have succeeded in providing all students a quality education has been questioned (Allensworth et al., 2009). In 1997, Chicago Public Schools, the third largest public school district in the nation, began requiring all high school students to be enrolled in a college-prep curriculum, which consists of four years of English, three years of math, three years of science, and three years of social studies, while eliminating the use of remedial courses for low-ability students (Allensworth et al., 2009). Researchers recently analyzed the effects of this policy. Using an interrupted time series analysis, the researchers compared outcomes of similar students in pre-and post-policy periods. Algebra I and English I failures for low-ability students increased under the policy, although the racial and socio-economic distribution of students taking these college-prep courses was more equitable (Allensworth et al., 2009). The study also found that the policy did not change

graduation rates. In fact, the researchers inferred that requiring low-achieving and under-prepared students to complete rigorous coursework for graduation could cause them to disengage from school (Allensworth et al., 2009).

Educators and policymakers knew before *A Nation at Risk* was released that social background characteristics were linked to the probability that a student would graduate from high school (Barro & Kolstad, 1987). Failure to consider the ramifications of rigorous coursework with no supports in place is detrimental to low-performing students. Rumberger's (1983) study of the influences on dropout behavior revealed that low family socio-economic status was a powerful predictor of dropout behavior. In fact, Rumberger (1983) stated that family background differences could explain almost all the racial differences in dropout rates. This research was supported in the nationally representative longitudinal 1980-1992 survey, High School and Beyond (HS&B). This data rich research provided empirical findings of the significance of parents' education, family income, and having both parents in the home as strong predictors of high school completion, and conversely, failure to complete high school (Barro & Kolstad, 1987). Increasing standards and creating policies that address rigorous course work do not advance equity in education when they fail to deal with the sociological gap *along with* the achievement gap.

Cultural capital is an unspoken presence in schools. Bourdieu (1986) suggests that "scholastic yield from educational action depends on the cultural capital previously invested by the family. Moreover, the economic and social yield of the educational qualification depends on the social capital, again inherited, which can be used to back it up" (p. 4). Cultural capital is difficult to identify. In fact, it is often recognized and

legitimized as competence. It is "validated by the educational system, i.e., converted into a capital of qualification, is subject to a more disguised but more risky transmission than economic capital" (Bourdieu, 1986, p. 15). Because accumulation of cultural capital begins at birth, it is no surprise that

> the transmission of cultural capital is no doubt the best hidden form of hereditary transmission of capital, and it therefore receives proportionately greater weight in the system of reproduction strategies, as the direct, visible forms of trans-mission tend to be more strongly censored and controlled. (Bourdieu, 1986, p. 6)

Cultural capital, with time as the medium, can be transferred into economic capital. If cultural capital begins at birth, is validated by the school system, and is linked to economic capital, it is no surprise that those students going to Stanford were born winners after all.

Although the acquisition of social and cultural capital appears to lie outside the scope of public schooling, schools do matter (Rothstein, 2004). They can provide opportunities that some students might not experience otherwise. Shenk (2010) says, "None of us is stuck in some sort of destined body or life. We inherit – and we also become" (p. 68). His 2010 book *The Genius in All of Us: Why Everything You've Been Told about Genetics, Talent, and IQ is Wrong* offers a compelling argument for changing the way Americans think about learning and about becoming. Shenk (2010) suggests that genes multiplied by environment is much more accurate than the old stagnant model of genes plus environment. This idea of exponential growth as a result of the environment is crucial information for educators. The idea that "we do not *inherit* traits directly from our genes. Instead, we *develop* traits through the dynamic process of gene-environment interaction" (Shenk, 2010, p. 18) implies the imperative that more

attention should be paid to the learning environment and the experiences of the students who live there. It also supports Bourdieu's (1986) idea that the acquisition of social and cultural capital begins at birth. These traits and abilities may not be inherited through DNA, but they are developed by way of the environment to which children are exposed. If children are born into a culturally rich language driven environment, they begin acquiring these skills immediately. Other children who do not have this advantage, begin school far behind their more advantaged peers.

To create engaging gene interactive environments where all types of intelligence are developed, educators must first examine and understand the environments that students now attend. In "Social Class and the Hidden Curriculum of Work," Anyon (1980) suggests that "social class is a lived, developing process" (p. 70), and a "hidden curriculum" in schoolwork reproduces the nation's social class system. Anyon (1980) categorizes four types of learning environments found inside schools: working class schools, middle class schools, affluent professional schools, and executive elite schools. The category names used to describe each environment primarily represent the occupations of the parents whose students attend the schools.

Working class schools educate students who are primarily the children of unskilled/skilled laborers. In these schools, students are asked to complete schoolwork that is generally mechanical and rote. Students are rarely given choices or provided the opportunity to make decisions. They know little about why they complete the work that is assigned, how it is relevant to other teachings, or what the significance of the assignment might be. If students don't get it, they are told they need more practice. Students are not graded on whether the work they do is right or wrong, but instead they

are rewarded for following steps in a procedure. Students are being groomed to work profit for others. “Such work, insofar, as it denies the human capacities for creativity and planning, is degrading . . . [these children are] developing abilities and skills of resistance” (Anyon, 1980, p. 88). Working class schools offer little hope for students to become and contribute.

Middle-class schools serve the upper blue collar and lower white-collar skilled, well-paid workers (Anyon, 1980). Students have some choices and decision-making opportunities are available on a limited scale. Finding answers in books or listening to the teacher is important. Fragmentation of learning occurs in these classrooms. Teachers explain answers, but very little analysis or synthesis occurs. In middle-class schools “doing well is important because there are thought to be other likely rewards; a good job or college” (Anyon, 1980, p. 79). Middle class schools prepare students for white-collar middle class jobs which require workers to either know the right answers or know how to find the right answers (Anyon, 1980).

Affluent professional schools serve primarily upper middle class families. Parents of these students are doctors, architects, corporate lawyers or engineers, advertising or television executives (Anyon, 1980). In these schools, student creativity is rewarded. Teachers facilitate more than control the classrooms. Students interpret and relate what they learn to life; relevance and autonomy matter. They have the opportunity to develop skills of expression that are used to develop concrete products. Negotiation and communication are common practices in the classroom. “Skillful application of one’s cultural capital may ultimately lead to social power and to financial

reward" (Anyon, 1980, p. 88). The students in these schools are developing a relationship to capital that will help them navigate their futures.

The executive elite schools serve students whose parents are top executives in large financial firms or on Wall Street. Fathers typically work while mothers do volunteer work (Anyon, 1980). Students in these schools are asked to reason and use logic with concepts that are applied to the real-world application of their knowledge. Academic quality is expected from each student, as is self-control and independent thinking and work. A student's motivation and work ethic is self-driven. Teachers are guides in the student learning process. Executive elite schools give their students life practice in managing and designing their own creative endeavors. These skills are necessary for control and ownership of physical capital and the means of production in society (Anyon, 1980).

The "hidden curriculum" of schoolwork is unspoken preparation for functioning in life; it reproduces class relations in society (Anyon, 1980, p. 90). Anyon's argument points out the complex but subliminal connections that exist in the activities that occur in schools everyday and "the unequal structure of economic relationships in which we work and live" (Anyon, 1980, p. 90). With this knowledge, educators can begin to change the experiences all students receive inside school classrooms – if that change is desired.

Social capital viewed in the context of neocapital theories is based on classic capitalistic theories of exploitation, surplus, investment, and return (Lin, 2001). Neocapital theories include human capital and cultural capital. Human capital refers to investing in specialized knowledge and skills with an expectation of receiving a higher

return. Cultural capital, in this aspect, refers to investments by society's ruling class in order to maintain the dominant culture. Bourdieu (1986) suggests that cultural capital exists in three forms: embodied, objectified, and institutionalized. Embodied cultural capital refers to the long-lasting behavioral tendencies developed by the cultivation of mind and body. In this form cultural capital is developed over time through experience and background opportunities. It is often embedded at birth through family status and expectation. It is difficult to recognize as capital, as it is often identified as legitimate competence. Objectified cultural capital takes its form by way of goods such as pictures, books, art, dictionaries, instruments, technology, and machines. Institutionalized cultural capital guarantees a particular form of social relationship in a lasting way through the exchange of widely shared attitudes, preferences, formal knowledge, behaviors, goods, and credentials. These credentials, certificates, and the academic progress obtained in public schools are utilized and/or exchanged for social and cultural access (Bourdieu, 1986). Schools are not neutral institutions. They reflect the experiences of the dominant class with a stratified layer of opportunities and roadblocks dependent on embodied and objectified cultural capital that is brought to the table. Maintaining the status quo allows the exploitation of the lower classes to reap the economic and status benefits perpetuated by dominant culture (Lin, 2001). Closing sociological gaps is not a target for those who enjoy the class system currently operating in society. The growing number of charter and private schools are indicative of this reality. "Social capital brings together individuals as homogeneous as possible in all the pertinent respects in terms of the existence and persistence of the group" (Bourdieu, 1986, p. 11).

Calling for the use of public funds to create charter schools of like-minded individuals is its own form of segregation. It perpetuates the sociological forms of capital that are passed on through disguised transmission. Bourdieu refers to this transmission as the arrow effect, a state of being where all accumulated cultural goods increase "the educative effect automatically exerted by the environment (Bourdieu, 1986, p. 11). Skillful application of this symbolic capital increases the likelihood of acquiring more social, cultural, and often physical capital. This concept is important because it implies that educators must first articulate why closing the sociological opportunity gap is important.

"There is a much uglier alternative" (Shenk, 2010, p. 123). America can adopt a predominantly laissez-faire attitude of competition and "winner-take-all". "Society will . . . become more and more extreme, producing some great achievers and many great unfortunate losers" (Shenk, 2010, p. 124). Many unfortunate losers, however, create unrest and division that can crumble the foundation of an ostensibly democratic society. Putnam's (2000) book, *Bowling Alone*, discusses social capital and the influence it has on the fall of civility, connectedness, and participation in American democracy and society. If the nation's democratic society is to survive, educational leaders and policymakers must consider the effects that sociological forms of capital has on learning and achievement.

Kirp's (2011) *Kid's First: Five Big Ideas for Transforming Children's Lives and America's Future* is a policy recommendation for educating children from "crib to college". Kirp creates a compelling picture of how social and economic manifestations of social class affect children. He cites health differences, including nutrition, prenatal

care, oral hygiene, and childhood illnesses as factors which influence children before they enter public schools. Disadvantaged children, on average, have higher occurrences of lead poisoning, asthma, and exposure to smoke. These factors combined with mobility, language exposure, and expectations at home create a gap before children arrive in the public school system (Alexander et al., 2014; Kirp, 2011; Rothstein, 2004). The economic, cultural, and symbolic capital each child brings to school matters, and how educators respond to that gap makes all the difference. Kirp's (2011) proposal reiterates Shenk's (2010) statement that the "sacrificial ethos [of a laissez-faire society] is not the sort of humanity we seek" (p. 124). In fact, "four out of five voters believe in the Golden Rule standard, that every youngster deserves an equal chance. Republicans and Democrats alike support a shift in priorities to favor children" (Kirp, 2011, p. 209). It is the right thing to do. If that is not enough, it is also the smart thing to do (Childress, Doyle, & Thomas, 2009). "Tapping into taxpayers' self-interest also works . . . The return-on-investment argument is by far the most compelling to people" (Kirp, 2011, p. 209). Reminding taxpayers of the benefits that a healthy public school system that focuses on the whole child is a good investment.

Although the sociological capital that children bring with them to school matters, educators can create programs that aim to close that gap. They can embrace the idea that non-cognitive skills like perseverance, self-confidence, self-discipline, punctuality, communication skills, social responsibility, and the ability to work with others need to be taught in every classroom (Kirp, 2011; Rothstein, 2004). All children should receive the opportunity to experience what students taught in the executive elite schools are provided. "It is not the case that a hierarchy of skills are gained sequentially

by students" (Rothstein, 2004, p. 6). Repetition and skill attainment in isolation does not create the kind of knowledge that can be transferred to life (Rose, 2009; Weiss, 2015). "Truly narrowing the achievement gap would not require children to learn "the basics" first. Lower-class children cannot produce typical middle-class academic achievement unless they learn basic and more advanced skills simultaneously, with each reinforcing the other" (Rothstein, 2004, p. 6).

Educators can "set high expectations, but also show compassion, creativity, and patience" (Shenk, 2010, p. 123). Failure should be seen as a learning opportunity, and not an indicator that students need to be placed in slower, less rigorous courses. The belief that some students have natural talents and abilities that allow learning at high levels while other students have limitations that place a ceiling on their learning capabilities is detrimental to the fundamental purpose of education - equitable opportunity for all. Resnick (1999) suggests that "effort can create ability" and that learning occurs as a direct result of how hard one works (p. 14). Current educational practice prevents students from achieving at high levels because (a) students are grouped to receive different curricular instruction which often results in lower standards for certain students; (b) students are graded on a system that assumes achievement occurs on set time intervals; and (c) students are remediated in programs that pull them out of the regular learning opportunities. Resnick (1999) suggests that these practices not only perpetuate low achievement, but they also validate the IQ, test-driven climate that surrounds current educational practices. Resnick (1999) proposes "educational institutions could be built around the alternative assumption that effort actually creates ability" (p. 16). Instead of an IQ score, intelligence is based on thinking and questioning

and working things out. The belief is that learning is possible for all and that intelligence is a product of one's habits of mind (Resnick, 1999).

If educational institutions were organized for effort instead of aptitude, they would possess clear expectations, fair and credible evaluations, opportunities to celebrate for success, an inversion of fixed time and variable results to fixed results with variable learning time, and the belief that everyone has the right to expert instruction (Resnick, 1999, p.16). Clear expectations should include the same high standards for all students. In 1964, Robert Rosenthal, a Harvard professor, showed the effect that teacher expectations could have on students (Rosenthal & Jacobson, 1968). He began his experiment by administering an IQ test, disguised as a test designed to predict academic "blooming" or intellectual gain, to all students enrolled at an elementary school. He then randomly assigned 20% of the students to an experimental group. He told their teachers that the students had been identified as the students who were most likely to show significant intellectual gains over the course of the school year. Eight months later, the children were retested. Those students whom the teachers had been led to expect greater intellectual gain, showed a significantly greater gain in IQ scores than children from the control group. This occurrence, commonly referred to as the Pygmalion Effect (or Rosenthal Effect), shows that when greater expectations are placed upon students, they perform better (Rosenthal & Jacobson, 1968).

Marzano and Brown (2009) suggest that a teacher's beliefs about a student's chances of success in school determine how that teacher acts toward that student, and that influences the student's achievement.

> Matters of …education are affected by a number of forces, but the beliefs we carry about people figure into both the development and implementation of

> policy….if we think that whole categories of people – identified by class by occupation – are not that bright, then we reinforce social separations… (Rose, 2009, p. 86)

Resnick's (2010) notion that an individual's IQ is not static and fixed, but rather can be shaped by his or her environment is a foundational belief that can change the way educators prepare children for the future. Although teacher preparation programs counsel prospective teachers about the dangers of this "self-fulfilling prophecy" in education, teachers across the U.S. and the principals that lead schools continue to hold on to negative beliefs about what certain students are capable of learning. Educators must recognize and fight against their own biases. "A person's internal motivation is highly malleable and is closely tied to social reality. Our cultural landscape directly affects whether and how people challenge themselves and others to achieve" (Shenk, 2010, p. 121).

Socializing intelligence is one way educators can begin to attack the sociological gap that exists in schools. Resnick and Nelson-LeGall (1997) contend that America has not seriously considered the "possibility that effort actually creates ability" and "that people can become smart by working hard at the right kinds of learning tasks" (p. 153). Not only have Americans failed to recognize this possibility, but also the nation's educational system maintains the status quo by educating students to take their assigned places in society. Anyon's (1980) study on the "hidden curriculum" of work illustrates this point. Many people, including educators, still believe that students of poverty have little hope to reach high levels of learning. The pressures of accountability can cause teachers to make excuses for a student's poor performance on testing standards. They often credit low student performance to his or her home life. This thought process is

exactly what Resnick and Nelson-LeGall (1997) question. They suggest that in other cultures, effort and ability are not viewed as independent dimensions. In such cultures people typically are socialized to act on the belief that high effort is the key to success (Resnick & Nelson-LeGall, 1997).

If educators focus more on creating opportunities for effort, achievement is possible. Historically, special education and remedial programs are examples of perpetuating opportunity gaps for students. In some schools, low-performing students are excluded from exposure to the rigorous curriculum standards that other students receive. Yet, these students are expected to take the same state mandated tests. Students cannot pass required tests if they are not exposed to the same curriculum or held to the same standards as other students. Some districts have begun to correct this problem by creating co-taught classes. These classes contain both regular education and special education students. They are taught by a regular education teacher and a special education teacher who work together to teach the standards. In these situations, exposure is guaranteed and modifications can be made on an individual basis based on teacher observations (Friend, 2008). Educators must give all students the time they need, the motivation to succeed, and the exposure necessary to learn the assessed curriculum. Shenk (2010) uses the term "plasticity" and explains that when given time, the human brain has a built-in capacity to become what a person demands of it. Programs must be designed to include and encourage all students to learn together. Excluding or tracking students from rigorous courses is limiting. "Although teachers and curricula are important, children learn from one another. Cultural capital rubs off" (Kirp, 2011, p. 96).

Educators should create equal access programs to provide engaging, creative, collaborative opportunities for all students like those found inside Anyon's (1980) executive elite schools. But even providing "executive elite" learning environments for all students will not close the gap that social capital creates. Coleman (1982) found that children from more affluent backgrounds are learning even when school is not in session. Children from affluent and middle class families go to the library, travel, and are involved in summer camps. Their homes are filled with books and paintings and often, adults who support and guide them. "Book availability for middle-class children was about 12 books per child. In poor neighborhoods, about one book was available for every 355 children" (Celano and Neuman, 2008, p. 258). Exposure to these opportunities is important to learning and the development of children.

Testing as the only accountability measure has removed cultural and practical experiences from the school day. Students no longer take field trips which expose them to life activities such as riding a train or a city bus, visiting art museums, fire stations, local community events, metropolitan libraries, the zoo, and the theatre. Students miss valuable cultural opportunities that they might otherwise never have the chance to attend. In an effort to prepare students for the future through rigorous testing, educators have closed off the world to many students. They have no way to obtain social, cultural, or in the end, economic capital.

Students who lack the opportunity to attend cultural events can learn through reading. Unfortunately, reading is one of the great social class dividers. Two-thirds of the reading achievement gap can be traced to what students learned or failed to learn in the summer months (Cech, 2007). The learning rates of both economically

disadvantaged students and affluent students are more comparable during the school year, but the economically disadvantaged students fall behind in the summer (Douglas, 2008). The losses experienced during the summer are cumulative which creates a wider disparity year after year (Gambrell, 2008). Entwisle, Alexander, and Olson (1997) describe this phenomenon this way:

> When school is in session, the faucet is turned on for all children, the resources children need for learning are available to everyone, so all children gain. When school is not in session, children whose families are poor stop gaining because for them the faucet is turned off. The resources available to them in the summer are not sufficient to promote their continued growth. (p. 37)

It is no surprise that economically disadvantaged students experience a large decline in reading comprehension, while their affluent peers lose only slight amounts (Alexander & Olson, 1997; Gambrell, 2008; Jehlen, 2008).

In her book *Summer Learning and the Effects of Schooling*, Heyns (1978) examined many summer programs to look at cognitive growth and learning. Although she concluded that there was a lack of experimental studies to support empirical results, she did suggest "the single variable most strongly associated with summer learning is family income" (Heyns, 1978, p. 120). This summer learning loss has been acknowledged in research since the 1950s when "educators realized that summer schools could furnish opportunities to remediate and prevent learning deficits" (Cooper, Charlton, Valentine, & Muhlenbruck, 2000, p. 4). Economic capital is a marker of opportunities to children. This information makes creating programs that target disadvantaged children by extending learning times and providing them the same opportunities that more affluent families can offer their children vitally important to the continued existence of a democratic society.

Unfortunately, summer programs alone cannot close the sociological opportunity gap that separates children. Alexander, Entwisle, and Olson (2007) found that "it is unlikely school resources can compensate wholly for the limited learning opportunities outside school that hold back many minority and low socioeconomic youth" (p. 176). However, educators should not stop trying. "Schools do matter, and they matter the most when support for academic learning outside of school is weak" (Alexander et al., 2001, p. 183). Recognizing this fact will help educators plan programs that work to even the playing field for all students. If as Rothstein (2004) suggests, "Social class differences most likely do affect the academic performance of students" (p. 2), then social class differences should be addressed in schools to the extent that is possible through the interworking of the institution, understanding that broad, far reaching progressive social policy will be required to address the systemic nature of the opportunity gap.

Placing moral literacy at the forefront of educational practice may also shrink the sociological gap. Literacy is not just reading and writing and speaking. It is understanding and recognizing appropriate timing and use of language, manners, and actions; it is reasoning on many different levels. Educators must address "public education in a holistic manner" (Zdenek & Schochor, 2007, p. 7). This approach requires an understanding of how the terms *literacy* and *moral* interact. Herman (as cited in Zdenek & Schochor, 2007) suggests that literacy is not a naturally occurring process, instead he writes that

> becoming literate is not an organic process, like physical growth; nor is it, like speech, the natural outcome of social life. It is a culture-dependent, intentional process. To be literate in a domain is to have the capacity to recognize and

> perform at some specified level of competency. One can be 'barely literate' or 'semiliterate'. (p. 2)

Zdenek and Schochor (2007) assert that this definition implies that a concerted effort is required in developing the type of literacy needed to navigate through life. Without instruction, formal or observational, students are "prevented from moving beyond their foundational level of skill" (p. 2). The Stanford Philosophical Dictionary (as cited in Zdenek and Schochor, 2007) defines moral as "a code of conduct put forward by a society . . . a code of conduct that, given specified conditions, would be put forward by all rational persons" (p. 2). These two definitions put together offer a foundational rationale for why moral literacy can help close the sociological opportunity gap, and ultimately, the achievement gap. The basic skills that are being taught in today's schools do not help economically disadvantaged students traverse the social situations that are needed to move outside what they have known their whole lives. Memorizing basic skills and knowing when and how to use them to function in a variety of settings are two completely different skill sets.

Moral literacy skills, whether taught through direct instruction, indirect instruction, or community involvement (Zdenek & Schochor, 2007), can provide all students the ability to function productively in a democratic society. Classrooms must be collaborative learning environments where all students feel safe to contribute and share both their successes and failures. Educators need "to promote interaction which will stimulate children's thinking to the next higher level of moral reasoning" (Paolitto as cited in Zdenek & Schochor, 2007, p. 5). Lessons should support curricular-based service learning initiatives, and students should be guided to see the world outside their classroom walls, their neighborhood streets, and their own social class.

Bourdieu's (1986) position that economic capital is closely related to cultural and social capital supports the idea that social capital is the ability to gather and utilize social resources. Civic engagement experiences provide students the opportunity to increase social capital by developing in them an

> ability to develop a societal perspective, exhibit empathy, and acquire a capacity to evaluate alternative perspectives on complex social problems . . . [they then] are better prepared to take on social roles as decision makers and negotiators of different perspective....these students are better prepared for civic engagement and are more capable of participating in a democracy. (Hurtado, 2002, p. 166)

Social capital helps communities to function well while also providing individuals the ability to maneuver in those communities (Bourdieu, 1986; Coleman, 1982; Putman, 2000).

Putnam's (2000) book *Bowling Alone,* is appropriately titled to represent the decline in social involvement in U.S. society. This involvement is the basis for collaboration and social cooperation. Putman reports that membership in bowling leagues is down, although bowling itself has risen in numbers. People are now bowling alone (or with their families) rather than in leagues. This lack of participation in organizations affects the organizational connections in a society, directly influencing a society's level of social capital (Putnam, 2000). These organizational connections, or social ties, can "influence who gets a job, a bonus, a promotion, and other employment benefits" (Putnam, 2000, p. 317). Mark Granovetter's (1973) *weak ties* concept supports Putnam's (2000) theory. These weak ties connect people to other acquaintances outside their circle of family and intimate friends whose sociological place does not offer the connections needed to provide them with information and opportunities they might not otherwise have (Winter, 2003). Participation in organizations and "activities teaches

social trust, which is the basis for collaboration and other forms of social cooperation" (Winter, 2003, p. 5).

When students are limited to learning basic skills, and educators focus on accountability standards as the end target, the larger issue of why public education exists gets lost in translation. Students need to be engaged in activities that require group collaboration, reasoning to find solutions, and action to make a difference. They need to be exposed to a variety of cultural and economic viewpoints so that they can develop connections to the worlds outside their own neighborhoods. They need rich educational opportunities and experiences that change who they can become. "Bowling alone" should not be an option in schools; collaboration and cooperation should be an expectation. Although there are theorists and researchers who argue against Putnam's (2000) alarm that U.S. society is in a crisis (Winter, 2003), the rise in America's crime rate, unemployment rate, incarceration rate, suicide rate, and graduation rates give educators and policymakers cause to look at the current educational system and its outcomes.

The social capital that students bring with them to school must be acknowledged and addressed. Non-cognitive skills, cognitive skills, and social cooperation skills must be developed concurrently. Schools can do this by addressing nutrition, health care, extended learning times, cultural exposure, authentic learning activities, moral literacy, community involvement, and the many other components that complete the complexity of the human mind and spirit. It is an overwhelming task, but ignoring the reality that these things matter, may have devastating effects on American society. Covaleskie (2007) says it best when he suggests that

> people must stop arguing about which sort of school is more effective in achieving higher levels of achievement on some sort of test and begin pointing out what will be lost to democratic life if society loses the idea of public. Society needs to begin talking about what children really need to learn, and how individuals ought to be helping them learn it. (p. 34)

Transition to High School

Students transition frequently throughout the educational process. They move from class to class, grade to grade, from one level to another, and from one school to another. Any or all of these transitions can be difficult, but the transition from middle school to high school can be one of the hardest transitions for students (Balfanz et al., 2004; Caldwell, 2007; Chmelynski, 2004). This transition happens at a time when students struggle with peer pressure, independence, self-identity, and academic pressure (Walsh, 2002) - a time when hormones rather than reason can oftentimes control their thoughts and actions (International Center for Leadership in Education, 2005). The freshman year plays a critical role in determining a student's future (Dedmond, 2005).

In a 1998 case study, Hertzog and Morgan found that the way students experience the transition from middle school to high school is a strong predictor of student success in 9th grade. Their research established a positive relationship between transition program practices and reduced dropout rates. They named lack of academic preparation, indifference toward homework, poor study skills, and lack of parental involvement as key indicators of unsuccessful students (Hertzog and Morgan, 1998). They also suggested that students who were retained were 50% less likely to graduate than their counterparts who progressed, and those who were retained twice were 75% less likely to graduate.

Retention and dropout rates are a national problem (Haney et al., 2004). The student's family, community, and school play a large role in the dropout rates (Alexander et al., 2014; Rumberger, 1995). Socio-economic status (Kaufman et al., 2004), core class failure (Cairns, Cairns, and Neckerman, 1989), attendance (Alexander et al., 2014; Waggoner, 1991), school transfers (Rice, 2001), lack of parental support (Rice, 2001), and negative school related experiences can also cause students to leave school early (Rumberger, 1995). The most common at-risk indicators are behavior problems that result in suspensions and re-suspensions, multiple retentions, absenteeism, poor grades, lack of confidence, lack of connection to school, and limited future goals (Queen, 2002; Ravitch, 2007; Rumberger & Palardy, 2005). Many researchers recommend the development of academic and counseling programs to address these issues.

A student's self-perception typically drops during the transition from middle to high school (Simons & Blyth, 1987; Harter, 1988; Reents, 2002). A study by Harter, Whitesell, and Kowalski (1992) found that self-perception declines after the transition to 9th grade due to the changing educational environment. This environmental change complicated the academic outcomes of individuals. In 1994, Seidman, Allen, Aber, Mitchell, and Feinman noted the harmful effects of school transitions on student's affective domains. Declining self-esteem, class participation, and grade point averages were all negatively associated with school transitions. Student motivation during the transition from middle school to high school is also a factor that leads to academic failure (Murdock, Anderman, and Hodge, 2000). Many students are negatively affected by discipline referrals and negative expectations of teachers and other peers. Student-

teacher relationships and peer influence can encourage or discourage academic success (Murcock et. al, 2000).

Because relationships matter, it is important to consider the impact of purposeful or intentional community when building remediation programs. Most of the studies surrounding collective efficacy in schools center on teacher beliefs, but this may also affect student groups. Collective efficacy, an intangible social construct (Goddard, 2003), is defined as a shared belief that by working together, a group can execute courses of action which use assets to accomplish goals that matter to all the community members (Sampson, Morenoff, & Earls, 1999; Goddard, 2001). In *Making the Grade*, Wagner (2002), suggests that an intentional community is created for a purpose. That purpose can be to achieve a group or individual goal. In schools, these communities can be used to increase self-efficacy of students. Self-efficacy is defined as people's beliefs about their capabilities to perform and exercise influence over events that affect their lives (Bandura, 1986). Both self-efficacy and collective efficacy determine the courses of action people choose, the goals they set, the commitment to these goals, their perseverance in the face of obstacles, their resilience to adversity, and whether their thinking is erratic or strategic, optimistic or pessimistic. Beliefs matter, and people who can learn self-efficacy, even by way of collective thought, realize more accomplishments (Goddard, 2001). Human resources and the perceptions of students, teachers, and the school as a whole can positively affect student achievement. Creating a community of students can facilitate efficacy growth while also creating a form of cultural and social capital.

Implications of Literature Review

Many different intervention and remediation programs are surfacing in school districts and individual classrooms around the nation. Regardless of the model used to create these interventions, it is important that educators understand the purpose and rationale behind any intervention or remediation program being utilized. This theoretical knowledge supported by empirical evidence can help prevent these efforts from becoming trends that come and go, leaving teachers and students disheartened and cynical. This understanding can also prevent remediation and intervention programs from becoming a mask for past programs such as tracking or ability grouping.

Information about remediation and intervention, about the forms of capital, and about past practice can guide and define the future development of programs designed to meet the needs of struggling students. There is no one way to teach a child, and failure at one point in time does not have to mean failure for life. As Rose (2009) stated,

> There have to be mechanisms in an educational system as vast, complex, and flawed as ours to remedy the system's failures. Rather than marginalizing remediation . . . [we should make] it as serious and effective as it can be.(p. 133)

Educational leaders and policy makers should use a solid research base to create remedial and intervention programs.

Conclusion

The importance of supporting students in their first year of high school is undeniable (Fall & Roberts, 2012; Fulk, 2003; Roderick & Camburn, 1999; Snyder & Dillow, 2010). Student achievement is a complex issue that includes factors found both inside and outside the school scope (Fall & Roberts, 2012; Kennelly & Monrad, 2007, Pharris-Ciurej, Hirschman, & Willhoft, 2012). Added to this complexity is the fact that

reform efforts at the secondary school level often include multiple components that differ in the administration and outcomes of intervention and remediation programs. This makes describing and testing the causal links between outcomes difficult to generalize across studies. This does not discount the value of knowing about the exemplary programs for specific age groups and having an understanding of the factors that contribute to student success or student failure during specific transitions. This knowledge can help educators create successful educational programs which address the needs of the students, staff, and community of the specific school for which the program is being developed.

Remediation/intervention programs have progressed through time to help address the accountability measures of the present day. The many different forms of these programs aimed at secondary students include summer bridge programs, ninth-grade academies, supplemental academic instruction, pull-out or push-in programs, double block remedial courses, and behavioral interventions. Each program differs in form and delivery based on local need, adding to the complexity of finding exact strategies to aid in the success of all high school students.

Upward Bound (Myers & Schrim, 1999), the most comprehensive intervention program, has served a large population over a substantial period of time. A slew of academic interventions including tutoring, enrichment classes, ACT/PSAT workshops, summer enrichment courses, and college preparatory workshops are provided to the study participants. Using random assignment and controlling for student ability, researchers have shown a positive outcome for lower-performing ninth-grade students.

However, these findings are, in some ways not as dramatic by the fact that, with the exception of the "at-risk students", most participants saw little academic benefit.

Like the Upward Bound program, Talent Development High School's ninth-grade instructional program (Calderon et al., 2005) and Project Transition (Quint et al., 1999) have undergone several evaluation studies. Although some positive outcomes of the academic interventions and smaller learning community programs, including lower dropout rates, more earned credits for the at-risk students, and improved relationships (Calderon et al., 2005; Cook, Fowler, & Harris, 2008; Davis & Dupper, 2008; Quint et al., 1999), have been noted, when averaged across all students, the outcomes of participation in the programs were inconclusive. Just like the Upward Bound program, there was no significant difference in standardized tests in reading and mathematics between the treatment and control group (Quint et al., 1999; Calderon et al., 2005).

The results of other academic interventions including *Word Identification Strategy* (Woodruff, Schumaker, & Dreshler, 2002), transition mathematic courses (Gamoran, Porter, Smithson, & White, 1997), pull-out courses (Calderon et al., 2005; Gamoran & Nystrand, 1994), supplemental remedial courses (Balfanz, Legters, & Jordan, 2004), push-in courses (Friend, 2008; Scruggs, Mastropieri, & McDuffie, 2007), and Response to Intervention programs (Bradley et al., 2005; Buffman et al., 2009;Vaughn et al., 2011) are limited for several reasons. First, many of the short-term gains in these programs have not shown longevity. Second, a lack of randomization of most of the research studies creates generalization, validity, and reliability concerns. And finally, there are a limited number of research studies over the numerous programs in existence.

Although summer remediation/intervention programs date back to the late 1880s, studies on their cost effectiveness show mixed findings. The Philadelphia program known as S.L.A.M. (Black, 2005) and the Baltimore's Teach Baltimore Summer Academy (Borman & Dowling, 2006) netted positive results in the area of summer learning loss in separate evaluations. Chicago's Summer Bridge program (Buchanan, 2007; Stone et al., 2005;) and the Summer Training and Education Program (STEP) (Grossman & Sipe, 1992) did not fare as well. Although there was short-term knowledge and personal behavior gains in each program, the cost, along with the fact that these improvements were not sustained over time suggests that these programs were expensive failures (Roderick et al., 2003).

Intervention/remediation programs designed to help low-performing high school students, including those found in local contexts like Bearcat Pride (Caldwell, 2007), Keep the Promise (Mass Insight Education and Research Institute, 2005) or the two-pronged program evaluated by Cook and his colleagues (2014) strive to close the educational gaps among students. A plethora of instructional strategies and program designs exist to solve this problem. However, only one thing is certain – the solution to helping underperforming students is complex, just like the human race. No one program or combination of programs fits all districts or all students.

The fact that social, cultural, and human capital affect how students learn (Bourdieu, 1986; Rothstein, 2004) and the understanding that the family unit plays a large role in student academic acquisition (Barro & Kolstad, 1987; Bourdieu, 1986; Kirp, 2011; Rothstein, 2004; Rumberger, 1983) should not be used as excuses to stop searching for programs that work to close the achievement gap. Instead this information

can be used to guide educators to watch for things like the "hidden curriculum of work" (Anyon, 1980) and a false presumption that some students cannot learn at high levels (Shenk, 2010). Failure, whether in the outcome of program evaluations or in individual learning, should be seen as learning opportunities (Shenk, 2010). Educators should adopt the attitude that "effort can create ability" (Resnick, 1999) and use this mindset to change the way intervention/remediation programs are developed and organized. Changing the way educators and policy makers think about remediation and intervention is a key component of making substantial educational change that can ensure learning for all students. ***Re***-fining, ***re***-mediating, and ***re***-thinking educational purpose and process means understanding the complexity of the issue and stepping outside what is traditional.

David C. Berliner, an educational psychologist, (as cited in Tyack & Cuban, 1995) states that "the public school system of the United States has actually done remarkably well as it receives, instructs, and nurtures children who are poor, without health care, and from families and neighborhoods that barely function" (p. 37). The experts (teachers, administrators, parents) can create programs that work in their communities with their children. Tyack and Cuban (1995) suggest that this

> demands an understanding of what most strongly motivates and discourages teachers. One place to start is to ask teachers what bothers them the most and to begin reforms there.(p. 139)

Longevity in the system will come "from internal changes created by the knowledge and expertise of teachers [rather] than from the decisions of external policymakers" (p. 133). Thus, it makes sense that remediation/intervention programs look different in different local contexts.

The challenge for educators is to stay informed. Knowing what works, what does not work, and the why of both positions are the keys to meeting student needs across broad and differing spectrums. Educators should do both the "smart thing" and the 'right thing" (Childress et al., 2009) for students. Social responsibility focused on moral intent (Starratt, 2006), and the "experience of school" (Rose, 2009) matter. Accountability policies that measure excellence only through high stakes testing miss the higher purpose of learning and the moral imperative of creating equitable experiences for all (Ravitch, 2010). Educational policies that seek equal attainment as opposed to equal opportunity (Ravitch, 2010) carry unintended results. An educational system that measures only the basic skills necessary to be considered "proficient" will create a society void of creativity, initiative, engagement, and unity.

Yes, achievement matters, but the definition of "achievement" and what is learned from accountability measures determines the direction of public education. This literature review focused on programs that seek to raise student academic achievement, but it also points to more profound thought surrounding a different measure of "achievement". Equity of opportunity and redefining the focus of learning can help answer Rose's (2009) question, "Why school?" Continuing the conversation about what students really need to learn will help maintain a democratic society (Covaleskie, 2007) while moving the narrow focus of addressing only academic skills to the larger discussion of creating comprehensive and meaningful intervention and /or remediation programs. The complexity of the human condition requires a focus on the whole child (Kirp, 2011) to not only create strong local programs but to also serve the good of the larger community.

Chapter 3: Design

Purpose

This study was designed to present a formative assessment of and a statistical foundation for the administration, school board, and teachers of the ESPIN program and other educational leaders as they seek to create and improve intervention programs aimed at helping struggling students transition from middle school to high school. The purpose of this study was to determine the impact that the Edmond Summer Program for Intervention Now (ESPIN), a ninth-grade remediation and intervention program, has on the achievement and school engagement of students participating in the initiative. This study sought an estimate of impact that was largely attributable to the program itself, rather than other factors through the use of a comparison group design that made strong efforts to control for potential confounding variables due to selection effects. This study examined a ninth-grade transitional intervention and remediation program that focuses on curricular and teacher-student interactions that support relationships and relevance (inputs) through increased time, transition curriculum, leadership training, career exploration, and academic development (throughputs). The ESPIN program is a year long initiative that consists of a summer bridge program followed by a year of looping the participants together during their core classes of English I, Algebra I, and science throughout their freshman year of high school. The program was established with a specific intent to achieve a series of quantitative and qualitative goals (outputs) for students entering high school who have experienced school failure as measured by state testing standards, high occurrences of behavior incidents requiring disciplinary response, and frequent school absences. The explicit and measurable goals of the

program include the following: 1) proficient testing levels on the state End-of-Instruction Algebra I test; 2) proficient testing levels on the state biology End-of-Instruction test; 3) proficient testing levels on the state English II End-of-Instruction test; 4) grade point averages that enable matriculation to the next grade level; 5) few discipline referrals; and 6) a low occurrence of school absences.

Research Questions

This research question-driven quasi-evaluation was designed and conducted to determine the impact that the ESPIN program has on the desired outcomes of program participants (Stufflebeam, 2001; Government Social Research Unit, 2007). More specifically, this outcome-based impact evaluation was utilized to answer these specific research questions:

1. Does ESPIN, a transition program which focuses on relationships and relevance (inputs) through increased time, a specific transition curriculum, leadership training, career exploration, and academic development (throughputs) achieve a series of quantitative and qualitative goals (outputs) for students entering high school who had a history of school failure as measured by state testing standards, high occurrences of behavioral and disciplinary challenges and frequent non-attendance issues?
2. What evidence exists that the ESPIN program is achieving or not achieving its student-referenced organizational goals as they pertain to equity and accountability?

The following sub-questions were utilized to assist in answering the general research questions posed above.

1. Is there a statistically significant difference between the ESPIN treatment group and the comparison group on the pass/fail rates on the Oklahoma Algebra I EOI test scores?
2. Is there a statistically significant difference between the ESPIN treatment group and the comparison group on the pass/fail rates on the Oklahoma English II EOI test scores?
3. Is there a statistically significant difference between the ESPIN treatment group and the comparison group on the pass/fail rates on the Oklahoma Biology EOI test scores?
4. Is there a statistically significant difference between the ESPIN treatment group and the comparison group on grade point averages?
5. Is there a statistically significant difference between the ESPIN treatment group and the comparison group in attendance rates?
6. Is there a statistically significant difference between the ESPIN treatment group and the comparison group in the number of days out-of-class due to reported behavior occurrences?
7. Is there a statistically significant difference between the ESPIN treatment group and the comparison group in a student's propensity to matriculate to the next grade level at the end of each year of schooling?

A variety of data collection procedures were utilized over a sustained period of time (Creswell, 2003) to determine an estimate of impact that was largely attributable to the program itself, rather than other factors through the use of a comparison group design that made strong efforts to control for potential confounding variables due to

selection effects. An aggregate of all treatment participants and comparison group participants over the course of 2010-2014 school years was utilized for comparison rather than comparing outcomes for each of the participants over the separate years of the program's existence.

The researcher sought to determine what it is that the ESPIN program "ought to achieve for persons receiving [the services]: valued, person-referenced outcomes" (Stufflebeam, 2001, p. 6), and on what stakeholders and program evaluators expected of the ESPIN program: "organization-referenced outcomes that reflect the organization's effectiveness and efficiency" (Stufflebeam, 2001, p. 6). This study explored the question of "whether a program [the ESPIN program] made a difference compared to either no program or an alternative program" (Schalock, 2002, p. 6).

Evaluation Process

An evaluation design should include sufficient rigor to produce relatively firm conclusions while also taking into consideration practical issues such as time, cooperation, and protection of human rights that may limit design options (Creswell, 2009). Schalock's (2002) methodological pluralism model reflects the use of both qualitative and quantitative data to determine the full worth and value of a program. A true evaluation utilizing the methodological pluralism model would measure individual and organizational performance outcomes as well as individual and organizational value outcomes. This study focuses only on the individual and organizational performance outcomes – one-half of Schalock's (2002) model and does not incorporate the use of qualitative data collection although the program outcome goals consist of qualitative as well as quantitative outcomes that are specified in its logic model. Organizational and

individual performance outcomes including state testing scores, grade point averages, low discipline referrals, increased attendance, and matriculation to the next grade level can be utilized to make assumptions about the value of the ESPIN program, but cannot be a complete depiction of the program's worth and value, or what constitutes a "true" evaluation. A true methodological pluralism model would also utilize surveys to measure staff, parent, and student satisfaction with the program. It would aim to identify the students' personal appraisals of their level of social inclusion, self-concept, and self-management of the educational experience. This study focuses on the performance outcomes of the participants and of the ESPIN program itself. Utilizing the available extant performance data to answer the specific questions related to student achievement can offer insight into the program's ability to create an atmosphere of success and growth among and within students.

This objectives-based evaluation study meets Stufflebeam's (2001) definition in that it "involves[s] specifying operational objectives and collecting and analyzing pertinent information to determine how well each objective was achieved" (p. 18). ESPIN was created to increase student achievement as measured by the Oklahoma State End-of-Instruction tests. A second goal of the program is to improve school engagement by increasing matriculation to the next grade level, increasing student attendance, encouraging higher grade point averages, and decreasing student behavior referrals.

Student test scores, grade point averages, discipline records, and attendance records were utilized as the "clear, supportable objectives" (p. 17). Stufflebeam (2001) also states that these objective-based studies are strengthened "by judging project objectives against the intended beneficiaries' assessed needs, searching for side effects,

and studying the process as well as the outcomes" (p. 17). Stufflebeam (2001) warns that "results should be interpreted in light of other information on student characteristics, students' assessed need, program implementation, student participation, and other outcome measures" (p. 21).

Organizational measures utilized in this study evaluate the overall effects of the program. One measure of program success is identified by students scoring proficient or advanced on state End-of Instruction tests. Proficient or advanced scores on the state EOIs are good indicators of student performance because these scores provide a quantitative picture of student achievement in the core curricular areas. Grade point averages are good indicators of student achievement and transition ability because they represent a student's capacity to consistently perform in a learning environment that requires the acquisition of high school credits for promotion to the next grade level.

Individual performance measures used in this evaluation include the following functional assessment indicators: 1) number of discipline referrals for students; 2) attendance rates of each student; and 3) student's ability to handle high school pressure as measured by dropout rate and matriculation to the next grade level. Low occurrence of discipline referrals indicates a student's ability to adapt to behaviors that are required for successful functioning at the high school. Attendance rates suggest a student's desire to engage in learning, and low dropout rates, drug use, and risky behaviors suggest a student's level of self-care and self-direction.

This program evaluation is designed to reflect one perspective on accountability of the ESPIN program: performance. The performance objectives of the ESPIN program directly relate to the improvement of accountability scores in the areas of math,

English, attendance, and dropout rates. A school's report card grade reflects a school's performance in these areas compared to state standards. Use of the Algebra I, along with the biology and English II, state End-of-Instruction tests as performance measures help to ensure the reliability and validity of the assessment itself in these areas. Internal validity is difficult to control in the educational arena due to the many external influences that affect individual outcomes. To state that the ESPIN program produced the obtained results requires validity and reliability to be thoroughly considered. Because purposeful sampling without randomization was utilized in this study, several threats to internal validity exist. Selection bias is an important consideration. Students who participated in the program had parents who committed to transporting their children to the four-week summer course and committed to their child's attendance each day of the program. Participation was voluntary, and because of this there is a background factor between those who accepted participation in the program and those who rejected participation that is difficult to measure. External validity is also affected by purposeful sampling and the small number of study participants. Without random sampling, or a larger study sample, generalization is difficult, but the results can be useful to the program creators and other educators seeking to increase student achievement and to help students successfully transition to the high school. Although randomization was not utilized, close review of Table 3.1 suggests the two groups are similar in population. A Chi-Square test on each of the student subgroups found no statistically significant association between the two groups (Gender $X^2 = .525$, p = .469; Economically Disadvantaged $X^2 = .000$, p = .997; SpEd $X^2 = .058$, p = .810; and Ethnicity $X^2 = .6.549$, p = .256), which adds to the relevance of the findings.

Table 3.1

Demographic Characteristics of Participants

Variables	Values	ESPIN Treatment		Comparison Group	
		N	%	N	%
Gender	Female	53	53	41	48
	Male	47	47	45	52
Socio-economic status	Free/Reduced Pay	43	43	37	43
	Regular Pay	57	57	49	60
Special Ed	Special Education	20	20	16	19
	Non- SPED Education	80	80	70	81
Ethnicity	Caucasian	62	62	60	70
	African American	19	19	12	14
	Hispanic	11	11	10	12
	Asian	2	2	1	
	American Indian	0	0	2	
	Two or More	6	6	1	

The information needed for this evaluation came from the Edmond Public School District's student data management system PowerSchool. Student demographic information, grade point averages, behavior referrals, attendance records, and testing information are available in the student accountability database. Algebra I, English II and Biology EOI test scores were utilized as academic achievement measures.

Schalock (2002) suggests that before a program is evaluated, its evaluability should be considered. The three prongs of this test include understanding the history and culture surrounding the organization, understanding the components in place which

can be evaluated, and finally, determining if a presence or absence of evaluation catalysts exists (Schalock, 2002). Edmond North High School has been identified as one of the top performing comprehensive public high schools in the state of Oklahoma. Newsweek magazine (2009) also ranked Edmond North as 462nd out of the 1,500 Best High Schools in America. The community and stakeholders have high expectations of the school and the students who attend there. Outcomes are important, but more importantly, the process of continuous improvement is valued. The school itself has many components in place that can be used as outcome measures. A detailed data management system stores individual as well as organizational measures, including student test scores, attendance data, discipline data, graduation rates, remediation rates, and many other organizational effectiveness indicators.

Stakeholders, those who created the ESPIN program and who continually seek to improve the program, are open to the evaluation process. Time and resources are available to complete the tasks associated with the evaluation. Because the summer bridge portion and the instructional technology portion of the program are funded by a competitive Perkin's Grant, there is both an internal and external need for the evaluation. For these reasons, the program met Schalock's (2002) evaluability test.

Setting

The Edmond Public School District is a suburb of one of the largest cities in the state of Oklahoma. It surrounds the third largest university in the state of Oklahoma and serves a highly educated population. Forty-seven percent of Edmond's residents age 25 and older have at least a bachelor's degree. Three high schools, five middle schools, and seventeen elementary schools serve the district's 22,600 students. Expectations for

academic excellence are high, and all three of the district's high schools rank among the top 100 schools in the U.S. Students in the Edmond Public School District score well above the state and national average on the ACT composite Test, averaging a composite score of 23.4. Maintaining this level of excellence and continuing the climb toward continuous improvement requires district leaders to look closely at what is occurring in the community and in the state. Growth in the area has brought changing demographics in the student population. The number of minority and economically disadvantaged students in the district has risen dramatically, with trend analysis indicating that the increase will continue. Table 3.2 illustrates this growth from 2005 through 2013.

Table 3.2

Edmond Public Schools Category Growth

Category	**2005**	**2013**	**Difference**
Caucasian	80%	66%	-14%
African American	9%	11%	+2%
Hispanic	4%	8%	+4%
Asian	3%	5%	+2%
Native American	4%	1%	-3%
Mixed	_	6%	+6%
Economically Disadvantaged	17%	27%	+10%

This study took place in the largest and most affluent of Edmond's three 6A (enrollment over 1500) high schools. Edmond North High School (ENHS) serves approximately 2500 students from middle to upper class families. The school has a history of academic excellence, but like the district itself, the school has begun to see a number of minority and economically-disadvantaged students enter its doors. Many of the students in the bottom 15% of low-performing students entering ENHS fall into

these two categories. As a result, school leaders have sought educational practice to help these students find success.

Population

The population for this study consisted of a purposeful sampling of ninth-grade students who qualified to participate in Edmond North High School's ESPIN intervention program. The ESPIN program began in May of 2010, after a year of program development, teacher selection, and secured funding through the Perkin's Reserve Fund Supplemental Grant. The intervention team at ENHS who created the program began with a list of eighth grade students who met a pre-established set of criteria and who would be entering the high school during the 2010-2011 school year. The pre-established set of criteria used for student identification includes the following: 1) failure on middle school math and/or reading Oklahoma Core Curriculum Tests (OCCTs); 2) prior grades; 3) student discipline records; 4) attendance records; 5) socio-economic status based on the federal school lunch program; 6) minority status; 7) gender; and 8) special education categorization. The Perkin's Reserve Fund Supplemental Grant aims to help economically disadvantaged students so economically-disadvantaged students have first priority for the 30 available seats in the program.

The ESPIN team begins with list of all 8th grade students who will be entering high school the next school year. These 8th grade students are then ranked by criteria and selected to be invited to participate in the program or to be eliminated from consideration. Students who have failed their 6th and/or 7th grade OCCTs are moved to a consideration list while all others are removed from the list. Then the consideration list

is vetted. Students who failed an OCCT test at the middle school but who appeared to be successful otherwise are the first eliminated from the consideration list. These eliminated, or "not invited" students share these characteristics: 1) they have only failed one test during their 6th and 7th grade years; 2) have an A/B grade point average; 3) have taken upper-level rigorous courses including Pre-AP Spanish I, Algebra I, or other advanced courses in the 8th grade with success; and 4) have been involved in school groups which engage students in the educational environment. The remaining students are considered for invitation based on priority. The first priority goes to those students who meet the economically disadvantaged Perkin's Reserve Fund Supplemental Grant requirements. From there, middle school principals and counselors make recommendations for invitation order based on number of tests failed, parental support, willingness to provide transportation to the summer bridge portion of the program, the student's behavior and work ethic, and students who are new to Edmond who do not have a test history but who seemed to be struggling at the middle school level. The students selected for participation in the program are then contacted by the ninth-grade principal who extends an invitation to each student and his/her family through letters and personal phone calls. Students and their families then accept or reject the invitation to participate in the program. As students reject participation, the next student on the ranking list is invited to the program. This process allows students who are not originally selected for the program to move into the invitation stage. The data chart shown below and labeled Table 3.3 identifies the ESPIN participant identification and invitation history since the program's inception.

Table 3.3

ESPIN Historical Chart

Year	Original List of Students who failed a 6th/7th OCCT test	Invited	Accepted
2010-2011	86	53	30
2011-2012	124	47	23
2012-2013	125	47	23
2013-2014	164	43	23

Note: Students on the original list may have failed only one middle school OCCT and otherwise, had a successful middle school experience. Many of these students were eliminated early in the process.

Students who accepted program participation were identified as the ESPIN treatment group for the purposes of this evaluation. Those students who were invited but declined program participation were identified as the qualifying but non-participating comparison group for the purposes of this evaluation. Although randomization was not utilized, treatment and comparison groups were examined in an effort "to determine causal relationships between specified independent and dependent variables, such as between a given instructional method and student standardized-test performance" (Stufflebeam, 2001, p. 27).

Data Accessing and Formatting

This research question-driven evaluation science study used preexisting data that are typically collected and utilized by school leaders at the school site. Consent was obtained from the site administrator and program coordinator to access and use the data for this research project. A copy of the consent form is included in Appendix A. IRB approval was requested and granted by the University of Oklahoma Compliance Office.

A copy of the IRB approval is included in Appendix B. A variety of statistical methods not typically utilized by the school were used to provide feedback on the ESPIN program and its impact on program participants. The principal researcher did not have direct contact with students involved in the evaluation study but was given access by the site administrator to de-identified qualifying students' demographic information, testing records, attendance records, discipline records, and grade point averages through the school's student data management system Power School.

The freshman principal at Edmond North High School provided the researcher a list of students from the 2010-2014 school years who qualified for and who were invited to participate in the ESPIN program. The list then identified students who had accepted participation in the program (treatment group) and those students who had opted out of participation in the program (comparison group). From this list, an excel sheet utilizing student ID numbers was generated to begin the descriptive data collection. Data were reviewed in a private area, and recorded on an electronic excel sheet. Using Student ID numbers as identifiers, the researcher recorded student demographic information (gender, race/ethnicity, and economically disadvantaged status), testing EOI scores, grade point averages, number of discipline occurrences, and attendance information. Once the excel data sheet was completed, data were coded so as not to reveal any student or family directly. Electronic data were kept on the researcher's laptop and protected with a password. The data key was kept securely and destroyed at the end of the study.

Data Analysis

The measures utilized in this study included the following:

Standardized achievement test results. Results from the Oklahoma Algebra I EOI tests were utilized to examine and compare students' academic achievement at the end of their ninth-grade year. This included the population from the 2010-2011 cohort, 2011-2012 cohort, 2012-2013, and the 2013-2014 cohort. For study participants who had completed their sophomore year, the Oklahoma English II and biology EOIs were added to this comparison, and the English III test was added to participants completing their junior year. This included the 2010-2011 cohort, the 2011-2012 cohort, and the 2012-2013 cohort.

The Oklahoma state mandated EOIs were used to measure student progress toward Oklahoma's academic standards and to meet the requirements of No Child Left Behind (Oklahoma State Department of Education, 2012). Proficient or advanced scores on the EOI tests are good indicators of student performance and serve as a proxy for more exacting observations and measures of program performance. These scores provide a quantitative picture of student achievement and growth in the area of math, science, and English as a result of what the program is intended to do. These data were collected to assist in a statistical determination of whether significant differences in academic achievement existed between matched-paired participants and non-participants in relation to the treatment of the ESPIN program.

Grade point averages. Archival data was retrieved to identify the grade point averages for students at the end of their 9^{th} grade, 10^{th} grade, 11^{th} grade, and 12^{th} years. Grade point averages are also good indicators of student achievement and their transition ability. Grade point averages represent a student's capacity to consistently

perform in a learning environment that requires the acquisition of high school credits for promotion to the next grade level.

Attendance. Archival data was retrieved to identify the number of absences for the treatment group members and the comparison group members over the course of the 9^{th} through 12^{th} grade years. These numbers included total number of days absent per student. It is important to note that three instances of tardiness to a class are equal to one absence. After 10 absences, students receive a no-credit for the course. The number of absences a student acquires has significant importance to program creators. A difference or lack of a difference in treatment and comparison group attendance rates was used as an outcome measure to suggest a student's desire to engage in learning and the probability of dropping out of high school (Epstein & Sheldon, 2002).

Discipline. Data was collected on the number of office referrals, in-school suspensions, and out-of-school suspensions assigned for the treatment group and the comparison group during the ninth grade year to determine any behavioral differences that existed between the two groups. Low occurrence of discipline referrals indicates a student's ability to adapt to behaviors that are required for successful functioning at the high school (Wehlage & Rutter, 1986). In combination, these measures of student performance serve as a proxy for direct observation and measurement of program functioning.

A series of logistic regressions were completed in Statistical Package for the Social Sciences (SPSS) to determine the probability that a student in the ESPIN program would perform better on individual student outcomes including EOI test scores, attendance records, discipline records, GPAs, and matriculation to the next

grade level than those students in the qualifying but non-participating comparison group. Logistic regression allows prediction in group membership from a set of variables that can be discrete, continuous, categorical, or a combination of the three. For this reason, logistic regression was appropriate for several statistical analyses utilized in this study. Hair, Black, Babin, Anderson, and Tatham (2006) state that logistic regression does not require that 1) the predicator variables be normally distributed, 2) that the predictor variables be linearly related, or 3) that there is homogeneity of variance within each group or equal group sizes. Logistic regression may be superior to discriminant analysis in terms of predicting total group accuracy (Meshbane & Morris, 1996).

Statistical methods utilized in the study included binary logistic regression, negative binomial regression, linear regression, the Pearson chi-square test, the phi coefficient and Pearson r test. The Pearson chi-square test was used to determine the levels of significance of the predictor variables for inclusion in the binary logistic regression model (Hosmer & Lemeshow, 2000). The phi coefficient and Pearson r were used to test the level of significance of predictor variables identified as statistically significant in the binary logistic regression analyses to assess their overall significance outside the control group (Garson, 2006). Logistic regression measures the relationship between a categorical dependent variable and one or more independent variables by predicting the probability of particular outcomes. Binary logistic regressions were utilized to identify whether participation in the ESPIN treatment group was statistically significant in predicting a student's success related to EOI test scores and propensity to matriculate to the next grade level. Linear regressions were used to determine the

relationship between a student's GPA and group participation. Negative binomial regressions with estimated value parameters were utilized with the count data found in the attendance and discipline student records to determine the effect of ESPIN and comparison group participation on these outcomes. Although Poisson regression can be utilized when a researcher has count data on some dependent measure that represents the rate of incidence of some event (days absent) (Orme, J.G. & Orme, T.C., 2009), the researcher chose to utilize the negative binomial regression (distribution) because of the additional parameter in the analysis which accounts for an unusual number of zeros. The negative binomial regression corrects for over dispersion, and therefore, is a more conservative analysis. To help complete a more accurate analysis of the attendance and discipline statistics, an estimated value parameter was utilized in place of the default parameter of 1 in SPSS. Many students registered no disciplinary absences or attendance absences. For this reason, a negative binomial regression (distribution) was utilized to answer the research questions related to attendance and discipline.

Research Hypotheses

In an effort to answer the two research questions posed by this study, five null hypotheses were evaluated in aggregate for all the ESPIN cohorts beginning in 2010:

- Null Hypothesis 1: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the Oklahoma Algebra I EOI test scores.
- Null Hypothesis 2: There is no statistically significant difference between the ESPIN treatment group and the comparison group in 9th grade GPA.

- Null Hypothesis 3: There is no statistically significant difference between the ESPIN treatment group and the comparison group in 9th grade attendance.
- Null Hypothesis 4: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the number of days out of class due to behavior occurrences at the end of the 9th grade.
- Null Hypothesis 5: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the number of students matriculating to the next grade level at the end of the 9th grade year.

Additional Information for the study included the following:

Five additional hypotheses were evaluated in aggregate as additional information for program creators on participants in the 2010-2011 cohort, 2011-2012 cohort, and the 2012-2013 cohort who had completed their sophomore and/or junior years of high school.

- Null Hypothesis 6: There is no significantly significant difference between the ESPIN treatment group and the comparison group in the Oklahoma English II EOI test scores.
- Null Hypothesis 7: There is no significantly significant difference between the ESPIN treatment group and the comparison group in the Oklahoma Biology EOI test scores.
- Null Hypothesis 8: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 10th grade GPA.
- Null Hypothesis 9: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 10th grade attendance.

- Null Hypothesis 10: There is no significantly significant difference between the ESPIN treatment group and the comparison group in the number of days out of class due to behavior occurrences in the 10th grade.
- Null Hypothesis 11: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the number of students matriculating to the next grade level at the end of the 10th grade year.

Four additional hypotheses were evaluated as additional information for program creators on participants in the 2010-2011 cohort and the 2011-2012 cohort:

- Null Hypothesis 12: There is no significantly significant difference between the ESPIN treatment group and the comparison group in the Oklahoma English III EOI test scores.
- Null Hypothesis 13: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 11th grade GPA.
- Null Hypothesis 14: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 11th grade attendance.
- Null Hypothesis 15: There is no significantly significant difference between the ESPIN treatment group and the comparison group in the number of days out of class due to behavior occurrences in the 11th grade.
- Null Hypothesis 16: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the number of students matriculating to the next grade level at the end of the 11th grade year.

Four additional hypotheses were evaluated as additional information for program creators on participants in the 2010-2011 cohort:

- Null Hypothesis 17: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 12th grade GPA.
- Null Hypothesis 18: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 12th grade attendance.
- Null Hypothesis 19: There is no significantly significant difference between the ESPIN treatment group and the comparison group in the number of days out of class due to behavior occurrences in the 12th grade.
- Null Hypothesis 20: There is no significantly significant difference between the ESPIN treatment group and the comparison group in high school cohort graduation rate.

Aggregate results of all cohort data were utilized for Algebra I test scores, 9th grade GPA, attendance rates, and behavior occurrences. Separate statistical analyses on aggregate data were utilized for cohort participants and non-participants completing the sophomore year, junior year, and senior years as additional information to the research. This information included English II, English III, and biology EOI test scores, grade point averages, attendance rates, and behavior occurrences at the 10th, 11th and 12th grade levels. This additional information adds information to the question of ESPIN's longitudinal impact on the propensity to graduate high school for participating and non-participating students.

Chapter Summary

Chapter 3 describes the research design implemented to evaluate the ESPIN program at Edmond North High School. This outcome-based question-driven quasi program evaluation investigated the impact that the ESPIN intervention program has on

incoming freshman students who have experienced a history of school failure. The evaluation can be used as a formative assessment for analyzing and improving the ESPIN intervention program. The use of quantitative data provided a picture of objective-based results to identify the program's effectiveness in meeting its goals.

Chapter 4: Findings

Introduction

This quasi outcome-based program evaluation investigated the impact that ESPIN, a ninth-grade remediation and intervention program, has on the achievement and school engagement of students participating in the initiative. This study sought an estimate of impact that was largely attributable to the program itself, rather than other factors through the use of a comparison group design that made strong efforts to control for potential confounding variables due to selection effects. The researcher sought to answer the following research questions:

1. Does ESPIN, a transition program which focuses on relationships and relevance (inputs) through increased time, a specific transition curriculum, leadership training, career exploration, and academic development (throughputs) achieve a series of quantitative and qualitative goals (outputs) for students entering high school who had a history of school failure as measured by state testing standards, high occurrences of behavioral and disciplinary challenges and frequent non-attendance issues?
2. What evidence exists that the ESPIN program is achieving or not achieving its student-referenced organizational goals as they pertain to equity and accountability?

To help answer these research questions, this study utilized a number of dependent variables as quantitative indicators including EOI Algebra I, biology, English II, and English III test scores, grade point averages (GPA), attendance rates, number of days out of class due to discipline occurrences, and students' propensity to matriculate

to the next grade level. Binary regressions were utilized on the dichotomous variable questions including EOI pass/failure rates and a student's propensity to matriculate to the next grade level. Linear regressions were used on the GPA questions, and negative binomial regressions with estimated value parameters were utilized with the count data in the attendance rates and discipline information.

The archival data used in this study were collected from Edmond North High School's student data management system PowerSchool in collaboration with site and district administration. Students who participated in the ESPIN program and those who declined participation in the program during the years 2010 through 2014 were utilized as study subjects.

Results

The results of this research study pertain to group effect and do not isolate for other factors of possible interest, including gender, race, socio-economic status, and special education designation. However, the descriptive statistics that were shown in Table 3.1 provide a picture of program and non-program participants across a range of characteristics, suggesting that no statistically significant differences exist between the two group memberships.

Binary logistic regression, negative binomial regression, and linear regression were utilized to test a number of null hypotheses related to the research sub-questions. These sub-questions were designed to provide evidence for research question #2 as to impact that ESPIN has on the achievement performance and school engagement of students participating in the initiative.

Missing cases in the following statistical analyses are the result of one or more of the following reasons: 1) the student moved out of the school to attend another school - (16 withdrawals from the comparison group and 9 withdrawals from the ESPIN treatment group over the course of the study); 2) the student had not completed the courses associated with the EOI tests; 3) the student had not matriculated to the next grade level due to entry cohort year, failure of courses associated with GPA, attendance, and/or discipline for that level; and/or 4) the student dropped out of school – (5 verified dropouts from the comparison group and 2 verified dropouts from the ESPIN treatment group over the course of the study).

End of Instruction Test Analyses

Null Hypothesis 1: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the Oklahoma Algebra I EOI test scores.

Null Hypothesis 6: There is no significantly significant difference between the ESPIN treatment group and the comparison group in the Oklahoma English II EOI test scores.

Null Hypothesis 7: There is no significantly significant difference between the ESPIN treatment group and the comparison group in the Oklahoma Biology EOI test scores.

Null Hypothesis 12: There is no significantly significant difference between the ESPIN treatment group and the comparison group in the Oklahoma English III EOI test scores.

The first set of analyses utilized binary regressions to predict a student's probability of achieving success on the state End of Instruction tests in Algebra I, English II, biology, and English III. These analyses address Null Hypotheses #1, 6, 7, and 12. The first step utilized in the binary regression was a Chi-Square Test using

group participation as a predictor. This test indicated if there was a statistically significant relationship between group membership and the EOI test scores.

The statistical data provided in Table 4.1 indicates that adding the group variable to the model was only significant for one of the EOI tests. Group membership increased the ability to predict Algebra I scores for pass/failure with p = .024. (N = 174, Chi-square =5.098, df=1, p=.024< .05). Participating in ESPIN or not participating in the treatment was not significant in predicting the results of the English II, biology, or English III EOI test results.

Table 4.1

EOI Test Scores- Model Summary

EOI	N	Chi-square	df	Sig	-2 Log likelihood	Cox & Snell Square	Nagelkerke R Square
Algebra	174	5.098	1	.024	160.991[a]	.029	.047
English II	131	.189	1	.664	127.520[a]	.001	.002
Biology	161	.825	1	.364	222.064[a]	.005	.007
English III	56	.221	1	.638	49.155[a]	.004	.007

This information in Table 4.1 suggests that those students participating in the ESPIN summer bridge and freshman year program had more success on the freshman year Algebra I test than did the comparison group members, but they were no more likely to pass the sophomore and junior grade level English II, biology, and English III EOIs than were the qualifying invited non-participants in the comparison group. The

strength of the relationship between group membership and the predicted outcome of the EOIs can be found in the Cox & Snell R Square and the Nagelkerke R Square values. For the Algebra I EOI test, the model can explain 2.9% - 4.7% of the variance in pass/fail results. Once this variance was identified the model was utilized to predict the odds that a subject in the treatment or comparison group would pass or fail an EOI test based on group membership. Table 4.2 illustrates the odds ratios and the predictability ratios for how good the model was at predicting outcomes based on a .5 statistical threshold.

Table 4.2

EOI Test Scores- Group Membership Variables in the Equation

Test	B	S.E.	Wald	df	Sig.	Exp(B)	Predictability Ratio Model Fit
Algebra I							
Group	.902	.409	4.862	1	.027	2.463	81.6
Constant	1.803	.252	18.386	1	.000	2.952	
English II							
Group	.193	.445	.189	1	.664	1.213	80.9
Constant	1.347	.311	18.722	1	.000	3.846	
Biology							
Group	.288	.317	.822	1	.365	1.333	53.4
Constant	-.047	.216	.047	1	.829	.955	
English III							
Group	.395	.863	.210	1	.647	1.485	83.9
Constant	1.551	.416	13.885	1	.000	4.714	

The odds prediction equation for the Algebra I EOI = ODDS = e^{a+bx} (ODDS = $e^{1.083 + .902*0} = 2.952$) indicates that a student in the comparison group (comparison = 0) is 2.952 as likely to pass the Algebra I EOI test as he/she is to fail the test. A student in the treatment group (treatment = 1) is (ODDS = $e^{1.083 + .902 *1} = 7.279$) 7.279 times more likely to pass the Algebra I EOI test than he/she is to fail the test. These odds can be

converted to probabilities: Y = ODDS/ (1+ODDS) = 2.952/3.952 = .75. Thus, the model predicts that 75% of students in the comparison group will have success on the Algebra I test. For students in the ESPIN treatment group, Y = ODDS/ (1+ ODDS) = 7.279/8.279 = .88. Thus, the model predicts that 88% of the students in the treatment group will pass the Algebra I EOI test. The Exp(B), known as the odds ratio predicted by the model is computed by raising the base of the natural log to b^{th} power, where b is the slope from the logistic regression equation. For this model (with p = .027, $e^{.902}$ = 2.463), those students participating in the ESPIN summer bridge and freshman year program are 2.463 times as likely to pass the Algebra I test than qualifying and invited non-participants in the comparison group.

Although the model predicted that 88% of the students in the ESPIN group would pass the Algebra I EOI, the results of the logistic regression were used to determine how good the model actually was at predicting outcomes. To achieve this, students were classified with respect to pass or fail on the EOI tests. Students in the ESPIN group were classified into the "pass" category if the estimated probability was .5 or more. Students in the comparison group were classified in the "failure" category if the estimated probability was less than .5. Known as the sensitivity and specificity of prediction, observed and predicted cases were logged. Based on the actual occurrences and the predicted but not observed occurrences, the overall predictability ratio for how well the model was at determining outcomes was established.

Based on the binary regression analyses of Null Hypotheses #1, 6, 7, and 12 addressing EOI test scores, the researcher found that Null Hypothesis #1 was rejected. ESPIN students were more likely to pass the Algebra I EOI test at a statistically

significant level than those students in the qualifying but non-participating comparison group. However, the statistical analyses failed to reject Null Hypotheses #6, 7, and 12 as there was no statistically significant difference in the predicted outcomes of the ESPIN and comparison groups on the state EOI English II, biology, and English III tests.

Grade Point Averages

Null Hypothesis 2: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 9th grade GPA.

Null Hypothesis 8: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 10th grade GPA.

Null Hypothesis 13: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 11th grade GPA.

Null Hypothesis 17: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 12th grade GPA.

Table 4.3 illustrates the regression analysis summary for GPAs.

The unstandardized coefficient B is used to predict the treatment average score and formulate the regression line. The average grade point average for 9th grade is 2.078 with the gradient of the regression equal to .397, predicting that students participating in the ESPIN summer bridge and freshman year program group will perform on average .397 GPA points higher than the qualifying non-participating comparison group members. Therefore, Null Hypothesis #2 is rejected, and 9th grade GPA can be tied to group membership.

Null Hypothesis #8 addressing 10th grade GPA is also rejected. The F statistic of 4.234 gives a p value of .042<.05 suggesting a statistically significant relationship between ESPIN treatment group members and the comparison group in 10th grade GPA. ESPIN participants can be expected to show a .289 higher grade point average than the non-participant comparison group. Two years after completing the summer bridge and freshman year program, ESPIN participants are predicted to continue to have higher 11th grade GPAs than the qualifying but non-participating comparison group members. Null Hypothesis #13 addressing 11th grade GPA is rejected at a statistically significant level p=.024 < .05. Based on the B coefficient value intercept, ESPIN students are predicted to have an average GPA of .424 higher than the comparison group. The statistical analyses failed to reject Null Hypothesis #17 addressing 12th GPA. There was no statistically significant relationship in the predicted 12th GPA of ESPIN treatment group members in relation to the comparison group members. One data point of interest for the 9th, 10th, 11th, and 12th grade GPA Null Hypotheses is the percentage of ESPIN and comparison group members who make up the total population at each grade level. Only one-third of the total population consisted of comparison group members during the 12th grade year while the preceding years (9th, 10th, and 11th) mirrored a more balanced 47/53, 47/53, and 49/51 percent population. The missing cases suggest that those students not participating in the ESPIN initiative left school at a higher rate and/or did not matriculate with their cohort at the same rate as those students who participated in the intervention.

Table 4.3

GPA- Regression Analysis Summary

	9th Grade		10th Grade		11th Grade		12th Grade	
N	180	100%	131	100%	86	100%	41	100%
ESPIN	94	53%	69	53%	44	51%	25	61%
Comparison	86	47%	62	47%	42	49%	16	39%
Mean		2.28		2.17		2.52		2.62
R Square		.077		.032		.059		.045
F Statistic		14.751		4.234		5.309		1.834
	Unstandardized Coefficients B							
Constant		2.078		2.021		2.304		2.438
		.397		.289		.424		.295
ESPIN		2.475		2.310		2.728		2.753
t								
Constant		27.815		19.801		17.498		14.324
ESPIN		3.841		2.058		2.304		1.354
Sig.								
Constant		.000		.000		.000		.000
ESPIN		.000		.042		.024		.183

Attendance

Null Hypothesis 3: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 9th grade attendance.

Null Hypothesis 9: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 10th grade attendance.

Null Hypothesis 14: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 11th grade attendance.

Null Hypothesis 18: There is no significantly significant difference between the ESPIN treatment group and the comparison group in 12th grade attendance.

Negative binomial regressions with estimated log value were utilized on the count data of days absent from school to address Null Hypotheses #3, 9, 14, and18 dealing with student attendance. The negative binomial regression with log link adopts a dispersion parameter of 1 to correct for over dispersion and is more conservative than other log count regressions including the Poisson Regression. However, using the negative binomial regression with SPSS default parameters can be too conservative and can overcorrect. To have a better calibrated and more accurate dispersion parameter, the researcher utilized an estimated dispersion parameter with log instead of the standard default parameter of 1. This model choice was tested by running all three analyses (Poisson, negative binomial with log link, and the custom negative binomial with estimated parameter value). The researcher then compared the Akaike's Information Criterion and the Bayesian Information Criterion for Goodness of Fit[a] before selecting the negative binomial with estimated parameter value.

The likelihood ratio Chi-square tests of the negative binomial regressions for attendance found in Table 4.4 indicate a statistically significant relationship at all four grade levels when group membership is added. With $p = .000$ at grade 9, $p = .022$ at grade 10, $p = .029$ at grade 11, and $p = .009$ at grade 12, the fit of the full predictor model over the null model is statistically significant. Log counts were utilized with a regression line to predict attendance rates for ESPIN participants and qualifying but non-participating comparison group members. The parameter estimates found in table

4.5 indicate group association is significant to the outcome at all grade levels. Null Hypotheses #3, 9, 13, and 18 are rejected.

Table 4.4

Attendance Model Fit with Descriptives

	9th Grade		10th Grade		11th Grade		12th Grade	
N	184	100%	132	100%	82	100%	40	100%
ESPIN	98	53%	72	55%	44	54%	25	62.5%
Comparison	86	47%	60	45%	38	46%	15	37.5%
Likelihood Ratio Chi-Square	14.731		5.280		4.739		6.893	
Sig.	.000		.022		.029		.009	

For the freshman year, the Exp(B) value, also known as the Incident Rates Ratio (IRR), predicts that ESPIN group members are expected to log .652 absences for every one absence recorded for the comparison group (1.00 - .652 = .348 x 100 = 35%). Therefore, ESPIN treatment group members are likely to have 35% fewer absences than the qualifying non-participants in the comparison group during their 9th grade year. At the 10th grade level, Exp(B) value is equal to .739 (1.00 - .739 = .261 x 100 = 26%) indicating ESPIN group members will have 26% fewer absences during their 10th grade year than the qualifying non-participating comparison group members.

Table 4.5

Attendance Parameter Estimates

	Parameter	B	Std. Error	Wald Chi-Square	Sig.	Exp(B)
9th						
	Intercept	2.613	.0783	1112.850	.000	13.640
	ESPIN	-.427	.1092	15.310	.000	.652
	Negative Binomial	.454	.0577			
10th						
	Intercept	2.661	.0941	799.799	.000	14.306
	ESPIN	-.303	.1306	5.371	.020	.739
	Negative Binomial	.479	.0679			
11th						
	Intercept	2.918	.1183	608.299	.000	18.500
	ESPIN	-.360	.1631	4.865	.027	.698
	Negative Binomial	.478	.0857			
12th						
	Intercept	3.457	.1933	320.004	.000	31.733
	ESPIN	-.665	.2469	7.254	.007	.317
	Negative Binomial	.529	.1275			

At grade 11, Exp(B) = .698 (1.00 - .698 = .302 x 100 = 32%), predicting 32% fewer absences for ESPIN participants than for those students in the comparison group. At grade 12, Exp(B) value = .665 based on the group variable (1.000 - .665 = .335 x 100 = 33.5%). ESPIN treatment group members are predicted to have 34% fewer absences

than those qualifying non-participants in the comparison group. All four null hypotheses related to attendance are rejected. By grade 12, the total population of the comparison group has decreased from the original count. Only one-third of the total population makes up the comparison group as opposed to the near 50% at the other grade levels. Keeping students in school is an ESPIN program goal, and this data suggests that students participating in ESPIN are more likely to stay in school at higher rates than the qualifying but non-participating comparison group members.

Discipline

Null Hypothesis 4: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the number of days out of class due to behavior occurrences at the end of the 9^{th} grade.

Null Hypothesis 10: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the number of days out of class due to behavior occurrences at the end of the 10^{th} grade.

Null Hypothesis 15: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the number of days out of class due to behavior occurrences at the end of the 11^{th} grade.

Null Hypothesis 19: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the number of days out of class due to behavior occurrences at the end of the 12^{th} grade.

Negative binomial regressions with log link were utilized on the count data of days absent from school due to disciplinary occurrences. Table 4.6 gives a summary of

the number of participants in both the ESPIN treatment and comparison groups used to test the model fit for disciplinary occurrences.

The negative binomial regressions with estimated value parameters shown in Table 4.7 show no statistically significant relationship in the difference of the number of days out of class due to disciplinary action for the ESPIN group members and the qualifying non-participating comparison group members in grades 9, 10, 11, and 12.

Table 4.6

Discipline Model Fit with Descriptives

	9th Grade		10th Grade		11th Grade		12th Grade	
N	181	100%	133	100%	88	100%	44	100%
ESPIN	96	53%	73	55%	46	52%	28	64%
Comparison	85	47%	60	45%	42	48%	16	36%
Likelihood Ratio Chi-Square	.032		1.149		.399		.163	
Sig.	.858		.284		.528		.687	

Several reasons can be explored regarding these discipline analyses. First, the ESPIN intervention program is a freshman level initiative operating inside a Freshman Academy at Edmond North High School. The philosophy and foundational belief of a Freshman Academy centers on transitional support. This support includes a lenient disciplinary policy on first and second offenses for all 9th grade students. At grades 10, 11, and 12, the total population of the study begins to change, and the comparison group members decline at a faster rate than do the ESPIN group members.

Table 4.7

Discipline Parameter Estimates

	Parameter	B	Std. Error	Wald Chi-Square	Sig.	Exp(B)
9th						
	Intercept	-.551	.4633	1.414	.234	.576
	Groups	.114	.6346	.032	.858	1.120
	Negative Binomial	16.510	4.3936			
10th						
	Intercept	.182	.5294	.119	.731	1.200
	Groups	.785	.7103	1.221	.269	2.192
	Negative Binomial	15.984	3.8665			
11th						
	Intercept	.511	.8336	.376	.540	1.667
	Groups	.742	1.1500	.416	.519	2.100
	Negative Binomial	28.583	9.5342			
12th						
	Intercept	-2.88	1.6278	.031	.860	.750
	Groups	.868	2.0337	.182	.670	2.381
	Negative Binomial	41.060	23.8930			

Attrition over the course of the study includes 16 withdrawals and 5 dropouts in the comparison group compared to 9 withdrawals and 2 dropouts in the ESPIN group. Grade level attrition also affects the results as students are categorized for grade level based on the number of credits earned. Failure to earn enough credits at each grade level prevents matriculation to the next grade and can influence grade level populations. By

grade 12, several students have failed to advance, and others have left due to mobility, discipline, and attendance. Comparison of the changing populations between the ESPIN group and the qualifying non-participating groups helps create a clearer picture of the analyses. The small number of students in the study also likely affects the discipline analyses.

To help validate the research findings in the area of discipline, binary regressions were completed for each grade level. A student with no behavior infractions was coded with 0 while students having one or more behavior infractions were coded with 1. The outcome of the binary regression was the same as the negative binomial regression. There was no statistically significant difference in the predicted number of behavior incidents based on group association. However, the number of students earning a behavior infraction and the number of days that resulted in removal from class adds insightful information to program creators.

Students in the ESPIN treatment group appear to have missed more days of class due to discipline at all grade levels than did the qualifying non-participating comparison group. Table 4.8 and 4.9 illustrate this information. Although there were fewer students involved in the infractions, some of the offenses were more severe. Drug, alcohol, and weapon infractions resulted in longer periods of suspension/removal from class for some students. In fact, one student in the ESPIN group accumulated 219 of the 465 total days for the group. This one ESPIN student accounts for 33% of the aggregate total days out of class due to behavior for both groups. The qualifying but non-participating comparison group members logged a more evenly dispersed number of days out of class per student committing the infractions. (See Appendix C for student counts.)

Table 4.8

Grade Level Students Committing Behavior Infractions

	N	% Group Members with an infraction	# Students with Infractions	# Days Out of Class	% of Total Days Out of Class due to Discipline
9th					
ESPIN	96	10%	10	62	56%
Comparison	86	16%	14	49	44%
10th					
ESPIN	73	16%	12	192	73%
Comparison	60	22%	13	72	27%
11th					
ESPIN	46	13%	6	161	70%
Comparison	42	14%	6	70	30%
12th					
ESPIN	28	11%	3	50	81%
Comparison	16	6%	1	12	19%

Note: Students with infractions are counted at each grade level and are therefore included more than once in these counts.

Table 4.9

Aggregate Summary of Disciplinary Infractions

	#Students incurring an infraction	#Days Out of Class due to Discipline	% Total Days Out of Class due to Discipline
ESPIN	22	465	70%
Comparison	24	203	30%

Although the total number of days out of class due to behavior are greater for ESPIN participants, this number can be deceiving because of one student's log count. A higher percentage of the comparison group members incurred one or more disciplinary

infractions in grades 9 and 10. By grade 11 the percentage of participants incurring behavior infractions from both the ESPIN and comparison groups is similar. By grade 12 the qualifying non-participating comparison group members have a lower percentage of students from the total group number incurring disciplinary infractions than do the students in the ESPIN group. This is not surprising, however, if attrition due to suspension, attendance, or dropping out affects the overall number as students progress through the high school ranks. In fact, the qualifying non-participating comparison group numbers fell to just over one-third of the total study population in the 12th grade. This is a result of the numerous attrition factors mentioned in the preceding results.

Cohort Matriculation

Null Hypothesis 5: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the number of students matriculating to the next grade level at the end of the 9th grade year.

Null Hypothesis 11: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the number of students matriculating to the next grade level at the end of the 10th grade year.

Null Hypothesis 16: There is no statistically significant difference between the ESPIN treatment group and the comparison group in the number of students matriculating to the next grade level at the end of the 11th grade year.

Null Hypothesis 20: There is no significantly significant difference between the ESPIN treatment group and the comparison group in high school cohort graduation rate.

Binary regressions were utilized to examine Null Hypotheses # 6, 11, 16, and 20 related to cohort matriculation to the next grade levels.

Table 4.10

Matriculation Model Summary

Grade	N	Chi-square	df	Sig	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
9th to 10th	179	8.826	1	.003	149.764[a]	.048	.082
10th to 11th	132	3.923	1	.048	158.018[a]	.029	.041
11th to 12th	84	9.142	1	.002	99.125[a]	.103	.142
Graduated on time	44	2.440	1	.118	55.243[a]	.054	.074

The Matriculation Model Summary (Table 4.10) indicates that adding the group variable to the model significantly increased the ability to predict matriculation for 9th to 10th grade, 10th to 11th grade, and 11th to 12th grade based on ESPIN participation. The Cox & Snell R Square and the Nagelkerke R Square determine the variances in the matriculation rates explained by the model. For 9th grade students advancing or not advancing to the 10th grade, the model can explain 4.8% to 8.2% of the variance. Likewise, 2.9% to 4.1% of the variance can be explained for 10th grade students advancing or not advancing to 11th grade, and 10.3% to 14.2% of the variance can be explained for students advancing or not advancing to their senior year. There was no statistically significant relationship between ESPIN and the comparison group on predicting the cohort graduation for seniors. This outcome could also be a result of attrition of study participants. Table 4.11 adds further information on matriculation.

Table 4.11

Matriculation Variables in the Equation

Grade	B	S.E.	Wald	df	Sig.	Exp(B)	Predictability Ratio Model Fit
9th to 10th							
Group	-1.261	.447	7.950	1	.005	.283	83.8%
Constant	-1.114	.251	19.635	1	.000	.328	
10th to 11th							
Group	-.757	.386	3.845	1	.050	.469	69.7%
Constant	-.460	.262	3.106	1	.078	.632	
11th to 12th							
Group	1.447	.500	8.386	1	.004	.235	65.5%
Constant	.000	.309	.000	1	1.000	1.000	
Graduated with Cohort							
Group	-.999	.646	2.387	1	.122	.368	63.6%
Constant	.000	.471	.000	1	1.000	1.000	

For freshman matriculation, there is a statistically significant difference ($p = .005$) between an ESPIN participant and a comparison group member in the likelihood that a member of either group will earn an appropriate number of credits to move to the next grade level. The model predicts that the odds of success are .283 times higher for a participant in the ESPIN treatment group to matriculate than they are for the qualifying but non-participant comparison group members. At the 10th grade level, $p = .050$, the model predicts that the odds of success are .469 times higher for an ESPIN participant to move to grade 11 than a qualifying non-participant in the comparison group. At the end of 11th grade, with $p = .004$, the odds of successful matriculation to the 12th grade for ESPIN participants are .235 times higher than for a qualifying non-program

participant in the comparison group. Adding the group variable to the model did not significantly increase the ability to predict cohort graduation rate for seniors.

However, Table 4.12 indicates the actual number of ESPIN treatment participants and qualifying non-participants in the comparison group who actually graduated on time with their cohort. These numbers are significant to program creators as they indicate a 23.1% higher graduation rate for ESPIN members. Null Hypothesis #6, 11, and 16 are rejected while there was a failure to reject Null Hypothesis #20.

Table 4.12

Supplemental Cohort Matriculation Data

	Matriculate to 10th Grade		Matriculate to 11th Grade		Matriculate to 12th Grade		Graduated with Cohort	
	N	%	N	%	N	%	N	%
ESPIN	94		70		42			
Yes	86	91.5%	54	77.1%	34	81%	19	73.1%
No	8	8.5%	16	22.9%	8	19%	7	26.9%
Comparison	85		62		42			
Yes	64	75.3%	38	61.3%	21	50%	9	50%
No	21	24.7%	24	38.7%	21	50%	9	50%

Note: % references total percent of individual groups.

Summary

A series of Null Hypotheses were utilized to answer the research questions posed in this study.

1. Does ESPIN, a transition program which focuses on relationships and relevance (inputs) through increased time, a specific transition curriculum, leadership training, career exploration, and academic development

(throughputs) achieve a series of quantitative and qualitative goals (outputs) for students entering high school who had a history of school failure as measured by state testing standards, high occurrences of behavioral and disciplinary challenges and frequent non-attendance issues?

2. What evidence exists that the ESPIN program is achieving or not achieving its student-referenced organizational goals as they pertain to equity and accountability?

One area addressed as a quantitative measure of the impact of the ESPIN program was state End-of-Instruction test scores. At the foundational level, the ESPIN program was created to help increase state EOI scores in Algebra I and biology, which are normally taken during the freshman year at Edmond North High School. Based on the statistical analyses used in this study, the program has met this goal in one area: ESPIN participants are predicted to pass Algebra I at higher rates than the comparison group members. EPSIN students, however, were not predicted to have any better results on the English II, biology, and English III EOIs than were the qualifying but non-participating comparison group members. The state biology EOI was a targeted area of the ESPIN program. The extensive reading required on the test was a key reason program creators changed the course pathway for ESPIN participants. ESPIN students took the biology test during their sophomore year of high school while qualifying but non-participating comparison students took the traditional course pathway and tested in biology during the freshman year. Although there was no predicted relationship between ESPIN participation and biology scores, it is interesting to note that the state average for the biology EOI test has ranged 20% to 30% below the school's average on

this test. Allowing an additional year of science skill building for ESPIN students may ultimately be a benefit to the overall school average in this area. However, the data analyses completed in this study found no statistically significant relationship between the ESPIN treatment group and the results on state EOIs taken after the freshman year.

The second set of analyses related to the research questions addressed the area of student grade point averages. Grade point averages for ESPIN participants were predicted to be higher than qualifying non-participating comparison group members at the 9th, 10th, and 11th grade levels. This information is important to program directors as it points to the collective efficacy and cultural capital established in the ESPIN group. Believing that higher grades can be earned, and that they are important to high school success is a direct program goal for students who had experienced a history of school failure during their middle school years. Knowing how to engage in the school processes and where to ask for help are key indicators of grade point averages. Although there is no measure for how much this area contributes to school engagement, passing students are more likely to find high school success than failing students.

There was no predicted difference in the 12th GPA for ESPIN participants and the qualifying non-participants of the comparison group, but there are several reasons that should be considered for this outcome. First, the number of comparison group students remaining with their cohort diminished by the senior year. This is likely due to lack of credits to promote to senior year or to attrition. Therefore, those qualifying non-participating students still in the study by their senior year had the grade point averages to matriculate. This would skew the difference in the two groups as only successful students from both groups made it to the senior year.

The third area, and one of the most important, examined in this study was attendance rates. Of the four Null Hypotheses (#3, 9, 14, and 18) addressing this outcome, all four were rejected. ESPIN students were predicted to log fewer absences throughout every grade level of their high school career than were the qualifying non-participating comparison group members. This outcome is especially important to program creators, and educators seeking programs to help encourage student attendance. No educational program can be successful if the students are not present to participate (Alexander et al., 2014; Wagner, 1991).

The fourth area considered when addressing the research questions was discipline. There was a failure to reject all four null hypotheses related to this area, implying that there was no statistically significant relationship between ESPIN group membership and the comparison group membership when predicting probability for disciplinary absences. The method utilized to measure this area was log counts on the days out of class due to disciplinary reasons (Alternative In-School Placement or Suspension). Although a good model fit for predicting the outcome, the test itself was conservative and cannot measure the number of students affected by the two groups. A few students from both groups registered extreme numbers causing an inaccurate picture of the impact of the program. The actual percentage of students from each group incurring a disciplinary infraction is important to note. Fewer ESPIN treatment participants acquired disciplinary infractions than the qualifying non-participants in the comparison group at every grade level except 12^{th} grade. Again, this information may be due to the attrition of comparison group members.

The final and most relevant information addressed in the Null Hypotheses surrounds successful matriculation to the next grade level. Oklahoma schools are tasked with graduating students in a four-year time period. Also known as cohort graduation rate, this number affects school accountability reports and individual students. It is also a fiscal drain if schools have to find alternate pathways such as alternative school, virtual classes, or credit recovery classes for students who are not successful the first time around. Three of the four null hypotheses addressing this area were rejected. ESPIN students were more likely to matriculate with their cohort group from 9th grade to 12th grade. Although ESPIN group participation was not statistically significant in predicting cohort graduation, the fact that 73% of the ESPIN participants graduated in a four year cohort time frame while only 50% of the qualifying but non-participating comparison group members graduated with their cohort is of importance to program creators. There is also value in noting that there were 5 verified dropouts from the qualifying non-participating comparison group over the course of study as compared to only 2 verified dropouts from the ESPIN group in the same time frame. The summer bridge classes, cultural capital exposure, and the relationships formed during the freshman level ESPIN intervention seem to positively influence high school attendance, engagement, grade point averages, matriculation to the next grade level, and ultimately, high school graduation.

Conclusion of Findings

This chapter reported the analyses and results for the two research questions explored in this outcome- based program evaluation. A series of logistic regressions were utilized to test a number of null hypotheses related to the impact that the ESPIN

program had on student and organizational performance outcomes. Statistical analyses illustrated the predictive capability of the independent variables (group association) as they related to the dependent variables – EOI test scores, GPA, attendance, discipline, and matriculation to the next grade level. Table 4.13 illustrates a synopsis of the statistical analyses of each of the hypotheses measuring the dependent variables.

Table 4.13

Synopsis of Null Hypotheses

	9th Grade	10th Grade	11th Grade	12th Grade
EOI State Exams	Algebra I Rejected	Biology Failed to Reject English II Failed to Reject	English III Failed to Reject	
GPA	Rejected	Rejected	Rejected	Failed to Reject
Attendance	Rejected	Rejected	Rejected	Rejected
Discipline	Failed to Reject	Failed to Reject	Failed to Reject	Failed to Reject
Matriculation	Rejected	Rejected	Rejected	Failed to Reject

Of the five 9th grade level null hypotheses, four were rejected. Participation in ESPIN predicted several student outcomes at a statistically significant level, including the Algebra I EOI test scores, 9th GPA, 9th attendance, and matriculation to the 10th grade. This information answers research questions #1 and #2 by presenting evidence that participating in the ESPIN initiative raises the probability of a successful transition from middle school to high school. Additional information added for program creators looked at the longevity of the effects of the freshman level ESPIN program. During the

sophomore and junior years, ESPIN students were predicted to have more success than the qualifying but non-participating comparison group members in the areas of GPA, attendance, and matriculation to the next grade level. This evidence suggests that the ESPIN program is achieving its student-referenced organizational goals with some longevity. The senior level null hypotheses pose questions about the sustainability of these effects over the course of a student's high school career. However, when examining the percentage of graduating seniors in the ESPIN group (73%) as opposed to those in the qualifying but non-participating group (50%), a conclusion as to the positive effect of ESPIN on graduation rates can be inferred. Students choosing to participate in the ESPIN freshman transition initiative have a higher probability of graduating with their cohort group than those qualifying non-participants who declined participation in the program.

Because only part of Schalock's (2012) methodological pluralism model was utilized in this study, the program's true worth and value cannot be entirely depicted. To achieve this goal, surveys to measure staff, parent, and student satisfaction with the program should be completed. This qualitative information would aim to identify the students' personal appraisals of their level of social inclusion, self-concept, and self-management of the educational experience. For the purposes of this study, and for program creators, assumptions about the value of the ESPIN program can be made based on the quantitative data analyses presented in this study. In summary, the statistical analyses utilized to answer the research questions related to the impact of the ESPIN program on individual student and organizational program outcomes suggest

that there is evidence that ESPIN is meeting most although not all of its performance program goals.

Chapter 5: Summary and Discussion

Introduction

The purpose of this research question-driven outcome-based quasi program evaluation was to determine the impact that Edmond North's ESPIN remediation and intervention program has on the achievement, attendance, and school conduct of program participants. This study sought an estimate of impact that was largely attributable to the program itself, rather than other factors. As such, the study sought to control for potential confounding variables due to selection effects. Ultimately, selection effects could not be entirely eliminated from the study as a matter of design or procedure, and there very well may be important and distinctive factors between qualifying students who accepted an invitation to the ESPIN program and those who did not.

The evaluation of the ESPIN program was designed to present a formative assessment to the administration, school board, and teachers with accurate data necessary to improve the program. This research study was also designed to provide a statistical foundation for the school and other educational leaders as they strive to create intervention programs aiming to help struggling students as they transition from middle school to high school. The data provided by this study are sufficient to determine the impact of the ESPIN program on student EOI test scores, grade point averages, attendance, discipline, cohort matriculation, and graduation success.

Statement of Problem

School accountability has changed the focus of public education (Berliner & Biddle, 1995; McDill et al., 1985; Ravitch, 2010; Trace, 1961). Schools can no longer

educate the masses with a "one-size fits all" standard. Educators must look closely at the students who struggle to pass minimum state testing standards or who fail to matriculate through the system due to low performance, attendance, or behavior issues. Because both individual and school outcomes are used as an indicator of a school's performance, educational leaders have begun the search for programs that help all students achieve at high levels. Research is clear about the fact that the larger social and emotional context of learning cannot be ignored when it comes to school performance (Alexander et al., 2014; Kirp, 2011; Putnam, 2015; Rothstein, 2004; Weiss, 2014). However, the government and the public expect educational leaders to address these issues in the context of the school setting. Educators feel the pressure of current federal and state policy mandates while juggling financial and physical resources to create strong educational environments focused on student learning (Ravitch, 2010). In spite of and in answer to these pressures, educators continually seek solutions to help all students achieve.

With one-third of the nation's students dropping out of high school (Seastrom, Hoffman, Chapman, & Stillwell, 2005; Barton, 2005; Stillwell, 2010; Snyder & Dillow, 2010; Pharris-Ciureij, Hirschman, & Willhoft, 2012; Fall & Roberts, 2012), and nearly half the prison population and half the head of households on welfare made up of high school dropouts (Barton, 2005; Fall & Roberts, 2012), high school educational leaders cannot afford to wait for students to fail. They must address struggling students who have had a history of school failure, poor attendance, and poor behavior at the elementary and middle school levels in the early stages of a student's high school career. Educational leaders must make crucial decisions about remediation and

intervention programs to help these students transition successfully to the high school environment.

The review of literature in Chapter 2 focused on the issues surrounding the importance of supporting students during their first year of high school. Academic failure and school engagement of high school freshmen is a complex issue that includes factors both inside and outside the school walls (Dedmond, 2005; Fall & Roberts, 2012; Fulk, 2003; Haney et al., 2004; Roderick & Camburn, 1999; Snyder & Dillow, 2010; Walsh, 2002). Social and cultural capital (Anyon, 1980; Bourdieu, 1986; Kirp, 2011; Lin, 2001; Putnam, 2000; Rothstein, 2004: Rumberger, 1983; Winter 2003;), collective efficacy (Goddard, 2003; Sampson, Morenoff, & Earls, 1999; Wagner, 2002), accountability reform (Ellis, 2007; Gold, 2002; McDill et al., 1985; Ravitch, 2010; Spring, 2001;Trace, 1961), along with past and current remediation/intervention programs (Alexander et al., 2007; Buffman et al., 2009; Cook et al., 2014; Gold, 2002) were explored in the review of literature. Extensive focus was given to reform efforts at the secondary level (Black, 2005; Borman & Dowling, 2006; Calderon et al., 2005; Caldwell, 2007; Grossman & Sipe, 1992; Myers & Schirm, 1999; Office of Philadelphia Accountability, 2011; Quint et al., 1999; Stone et al., 2005;).

Although remediation efforts date back to the early 1880s, there is no one program that works for all students. The programs are as complex and versatile as the students who participate in them. An abundance of instructional strategies and program designs exist to solve the issues surrounding student learning. Many of the programs discussed in the review of literature have been successful in the context in which they were created, but program evaluations at the school, district, state, and national levels

have ended in mixed results. The conclusions drawn from research conducted on the topic of intervention and remediation programs throughout the past five decades have varied in scope and longevity and have left educators with mixed-results (Calderon et al., 2005; Gamoran & Nystrand, 1994; Hattie et al., 1996; Mass Insight Education and Research Institute, 2005; Metzker, 2003; Vaughn et al., 2011).

This study contributes to the aforementioned empirical basis for remediation programming by closely examining one transitional summer bridge and continuing freshman year intervention program called ESPIN. The ESPIN program was designed to help struggling students with a history of school failure at the middle school level to transition successfully to the high school, and to ultimately, receive a high school diploma.

Review of Method

This research question-driven quasi-evaluation study utilized concepts and procedures of evaluation science as described by Schalock (2002). The following research questions guided this program evaluation:

1. Does ESPIN, a transition program which focuses on relationships and relevance (inputs) through increased time, a specific transition curriculum, leadership training, career exploration, and academic development (throughputs) achieve a series of quantitative and qualitative goals (outputs) for students entering high school who had a history of school failure as measured by state testing standards, high occurrences of behavioral and disciplinary challenges and frequent non-attendance issues?

2. What evidence exists that the ESPIN program is achieving or not achieving its student-referenced organizational goals as they pertain to equity and accountability?

Using a series of statistical regression analyses, a number of null hypotheses were utilized to predict the relationship between participation in the ESPIN program and a student's probability of successfully transitioning to the high school as measured by state test scores, grade point averages, attendance rates, number of days out of class due to disciplinary infractions, and the ability to matriculate to the next grade level.

The total population of students used in the study included an aggregate number of students who participated in the ESPIN program and those who qualified for but rejected participation in the program during the 2010 through 2014 school years. The population in each analysis varied from 181 to 40 based on the cohort year of the students as they entered 9^{th} grade. Missing cases in each of the analysis were a result of several factors including cohort entry year, failure to advance to the next grade level, movement of students out of the school and district, and dropout status.

Descriptive statistics, case summary, linear regression, binary logistic regression, and negative binomial regression models were used to analyze the student data. Descriptive statistics and case summaries provided the attributes and number of students in each of the analyses. Logistic regression provided a method for examining the predictive capability of the treatment and comparison groups when added to the model simultaneously. The study examined the odds that a student in the ESPIN treatment group would perform better on quantitative outcomes than those students in the comparison group who qualified for the treatment but who chose not to participate.

Review of Findings

Although the number of students qualifying for participation in the ESPIN program is growing each year, this study shows that only about half of the qualifying students and their families take advantage of the opportunity to participate in the summer bridge and on-going freshman year intervention program. Because students and their families volunteer for the ESPIN program, there is an important and unspecified background effect that is unaccounted for in this study. Families choosing to participate in the program may have a greater commitment to education and a larger interest in the educational success of the student. The summer bridge portion of the intervention requires parent transportation and a month of summer school that not all students and their families are willing to support. The varied reasons for this may closely relate to background factors connected to struggling students such as parenting approach, family configuration/instability, neighborhood composition, poverty, health/disability, views and attitudes toward school as an institution, transportation, among others (Alexander et al., 2015; Kaufman et al., 2004; Queen, 2002; Ravitch, 2007; Rice, 2001; Rumberger & Palardy, 2005).

Even though this background effect is difficult to measure, Table 4.1 illustrates the similarities of the ESPIN treatment group and the qualifying non-participating comparison group. For a volunteer sample entering the ESPIN treatment group, the treatment and comparison groups are remarkably similar in their composition related to socio-economic status, gender, special education, and ethnicity. This information is encouraging for ESPIN program directors and other educational leaders who seek

programs that address these factors as they relate to struggling students deemed at risk and their school engagement.

To answer the research questions posed in this study, analyses in five different areas including 1) state EOI test scores; 2) grade point averages; 3) attendance rates; 4) days of class missed due to behavior; and 4) matriculation to the next grade level, including graduation, were evaluated to determine the impact that the ESPIN program has on student success. The data analyses revealed a statistically significant difference in attendance rates at all grade levels (9-12). ESPIN students were expected to have 26% - 35% fewer absences than qualifying but non-participating comparison group members. This is especially important for educators seeking to improve student engagement, which often manifests itself in student attendance (Wagner, 1991).

The strength of a student's connection with the school can be an important influence in counteracting academic risk. Absenteeism and truancy, along with active disengagement such as school misbehavior and delinquency are key student behaviors that increase the risk of a student dropping out (Kennelly & Monrad, 2007; Pharris-Ciurej, Hirschman, & Willhoft, 2012). Increasing attendance rates among struggling students creates an opportunity to learn because students are in school longer. Educators can only teach students who show up for school, and this is the first step in improving student achievement (Alexander et al., 2014; Entwisle et al., 1997; Gambrell, 2008; Waggoner, 1991). An engaging curriculum and a commitment to the school community likely affect attendance rates (Allensworth et al., 2009; Anyon, 1980; Borman & Dowling, 2006; Kirp, 2011; Resnick & Nelson-LeGall, 1997; Shenk, 2010). This

evidence on increased attendance rates among ESPIN participants supports the impact the ESPIN program makes on this student and organizational outcome.

The data analyses conducted on GPA and cohort matriculation showed statistically significant differences at the 9th, 10th, and 11th grade levels between ESPIN treatment students and the qualifying non-participating students in the comparison group. ESPIN students were not only predicted to have higher grade point averages at each of these levels, but they were also expected to matriculate with their cohorts at a higher rate than students in the comparison group. Purportedly, the peer group dynamics of the ESPIN program, the relationships built between the students and staff involved in the program, and the focus on collective efficacy throughout the ESPIN program activities may create an insulated smaller environment for learning. This allows teachers to focus on students' emotional and social needs (Cook, Fowler, & Harris, 2008) while supporting the belief that learning occurs when students are confident and motivated to achieve (Davis & Dupper, 2008). Higher grade point averages and movement to the next grade level represent students' beliefs that they can achieve at high levels.

Finding no statistically significant differences between the ESPIN treatment group and the qualifying non-participating comparison group in GPA or graduation at the 12th grade level, was surprising. There is, however, a plausible explanation for this. By 12th grade, attrition of cohort membership has changed the group dynamics. Dropouts, two from the ESPIN treatment group and five from the qualifying non-participating comparison group over the course of the study, affect these numbers. There was also a difference in the number of student withdrawals in each group. Nine student withdrawals occurred in the ESPIN group compared to 16 student withdrawals

from the comparison group. Withdrawals can happen for a number of reasons – lack of attendance, behavior, transfer to another school, or relocation of the family unit to another district. Withdrawals differ from dropouts in that students have verified enrollment at another school and are no longer tracked by ENHS. The reasons for the withdrawals or dropouts, however, may be similar. Leaving one school and transferring to another school could be the result of a poor educational experience including attendance or behavior issues. Understanding the reasons behind a student withdrawal is, in some cases, as complex as the student. This information was not tracked in this study, but it would be beneficial for program creators to know this information.

Those students, whether ESPIN treatment or comparison group members, progressing to grade 12 have earned the credits, maintained the grade point averages, and have attendance rates that allowed matriculation. There would be less of a difference between the two groups at the 12th grade level. The students unable to meet these requirements are no longer included in the 12th grade cohort data. They have been identified by earned credits to a lower grade level, they have dropped out of school, or they have moved out of the school to another school altogether. One interesting piece of information to surface from the graduation analysis is the fact that 73% of the ESPIN group members graduated on time with their cohort, while only 50% of the qualifying but non-participating comparison group members graduated on time with their cohort. The ESPIN initiative is meeting its student and organizational goals in helping students matriculate through the high school grade ladder. Additional information surrounding the sustainability of these results could add important information to program creators.

The data analyses completed on state End-of-Instruction tests produced more mixed results than did the other analyses examined in this study. On one hand, EPSIN students were predicted to pass the required Algebra I EOI at a higher rate than those qualifying but non-participating students in the comparison group. This is good news for program creators because Algebra I is a required test not only in Oklahoma but also for the federal government *No Child Left Behind Act*. Students and school organizations are judged on the performance of students in this skill area. Programs that enhance the probability of student success on the Algebra I test are of interest to educational leaders.

On the other hand, there were no statistically significant differences in the predicted outcome of the state Biology EOI, English II EOI, or English III EOI. Because these tests are not taken at the freshman level, questions regarding the sustainability of the ESPIN impact on test results arise. This information is valuable to program creators as they examine extending the program to the upper grade levels.

The final area of analyses dealt with discipline and behavior of the ESPIN treatment group and the qualifying but non-participating comparison group members. The statistical analyses showed no statistically significant relationship between group membership and the number of class days missed due to discipline. The statistical analyses used in this study failed to reject all four of the discipline null hypotheses. One explanation for this is the conservative nature of the test. A negative binomial regression with estimated value was used for log counts of the days absent due to behavioral occurrences. Although the extra parameter in a negative binomial regression takes into account an over dispersion of zeros, most students, both in the ESPIN treatment group and in the comparison group, registered no infractions. When

infractions did occur, days absent ranged from 3 to 113 due to the nature of the behavior. Drug, alcohol, and weapon offenses, for instance, can result in a semester or year long suspension. To provide more information to program creators, the researcher ran frequency reports to determine the percentage of individual students from each group who registered a discipline infraction. Although ESPIN group members registered more total days out of class due to behavior, fewer students in ESPIN committed discipline infractions than the qualifying non-participating comparison group members at the 9th, 10th, and 11th grade levels. During the senior year, however, the number of offenders reversed. ESPIN students had more disciplinary infractions than did the qualifying non-participating comparison group members. This, like the senior graduation rate, could be the result of attrition of the comparison group members.

In conclusion of the data findings, the study seems to have found evidence by way of Algebra I EOI scores, attendance rates, GPAs, discipline, and matriculation rates that the Edmond North High School 9th grade summer bridge and freshman year ESPIN program is achieving its student-referenced organizational goals as they pertain to equity and accountability. ESPIN may provide cultural and social capital and increased time to struggling students who have had a history of school failure. Through the summer bridge program, ESPIN students make connections with teachers, administration, counselors, and peers while also becoming familiar with how to maneuver through the high school before the first day of their freshman year begins. This exposure and these connections may create equity for students who have had past difficulties in the educational system. In the area of accountability, ESPIN students pass the required Algebra I test at higher rates and have higher grade point averages than the

qualifying but non-participating comparison group members. ESPIN participants also seem to have higher attendance and matriculation rates than the qualifying non-participating comparison group members. Test scores, attendance rates, and cohort graduation rates are all included in school accountability reports. Not only do individual students prosper from improvement in these areas, but also schools that are judged and rated as a result of these accountability measures. This study provides pertinent information to ESPIN program staff members and to educational leaders seeking programs that focus on targeted populations. It is important to note that the study has several limitations in the area of both internal and external validity. Selection bias, number of participants in the study, backgrounds of the participants, and the school experiences of individuals in both the ESPIN and comparison groups over the course of the study may play an important role in individual and group outcomes. Local school initiatives are born out of need and specific contextual realities, but local programs can provide a guide for educational leaders as they search for program components that may work to help make the transition to high school easier for all students.

Significance and Implications of this Study

Although a single program evaluation cannot provide a roadmap for all educators wanting to implement a transition program for struggling students, it can provide the foundation for programs with similar goals. Successful components of the ESPIN program that could be considered when developing transition programs include 1) a summer bridge program focused on building cultural and social capital through leadership training, peer group support, a supportive environment, and relationship building; 2) core class looping throughout the freshman year; 3) career exploration with

college visits; 4) regular counselor and principal interaction with ESPIN participants; and 5) project-based/technology driven instruction.

Educating the whole child (Nodding, 2005) at the secondary level is not a new concept, but it is often overlooked in this era of test-based accountability. Programs like ESPIN that focus on relationships and relevance through increased time, a transition curriculum, leadership training, career exploration, and academic development are harbor lights for ships seeking a new shore. These local "grass root" initiatives are making a difference in kids' lives, and they give hope that there is a better way than the "skill and drill" practices of many remediation programs. Rose (2009) states that ***re-*** mediating remediation is needed to change the lives of students lost in the current educational system. To do this, educators must address more than academic subjects – other outcomes matter (Rose, 2009; Rothstein, 2004; Kirp, 2011). Educators must also familiarize themselves with other programs and practices so that the best program can be designed for the varied landscapes of local education systems. The significance of this study is its contribution to the overall work of all educators seeking programs and practices to help all students find success. If public education is to change for the better, school districts and educational leaders must use data to evaluate their programs and make decisions based on the effectiveness of these programs (Morris & Hiebert, 2011).

Recommendations

With every research study, questions are generated that require further investigation. Additional studies could be implemented to track the students who dropped out or transferred out of the program. The information found in these studies could increase the knowledge of successful and/or failed transition program

components. Establishing a clear impact of the ESPIN program and on student/organizational outcomes requires a longitudinal study following all participating students in the ESPIN program through their graduation. This study followed only one cohort through their senior year. Personnel changes, fidelity to the program, and different cohorts of students completing the program may alter the outcome. Additionally, a recommendation for a study that uses Schalock's (2002) entire methodological pluralism model in its complete form, utilizing qualitative data in addition to the quantitative outcomes such as those examined in this evaluation would be a step forward in understanding the linkages between program throughput conditions and subsequent outcomes. Program directors and/or administrators could utilize surveys for formative feedback from the staff, students, and parents affected by and involved in the ESPIN program. Program evaluations help organizations use outcome-based data as a basis for suggesting programmatic changes "to both improve services and increase their measurability, reportability, and accountability" (Schalock, 2002, p. 233).

Concluding Remarks

The transition from middle school to high school is without a doubt a key time in an adolescent's educational career (Roderick & Camburn, 1999; Snyder & Dillow, 2010; Fall & Roberts, 2012). Helping students maneuver through this difficult time benefits not only the student and educational organization but also the general public. If Shenk's (2012) argument about genes (multiplicand) multiplied by environment (multiplier) explains socialized intelligence (product) is accurate, then it is imperative that educational leaders focus on creating engaging learning environments with experiences that help develop the traits needed for school success. This is most

important for students who have struggled through elementary and middle school, and face the difficult transition to high school. Some students who need remediation perceive their low performance to be unchangeable; they expect to fail and give up readily when confronted with difficult tasks (Chapman, 1988). Programs, like ESPIN, seek to address the social and cultural capital students need to be successful. They embrace the idea that non-cognitive skills like perseverance, self-confidence, self-discipline, punctuality, communication skills, social responsibility, and the ability to work with others is a key factor in student and life success (Kirp, 2011; Rothstein, 2004). They use peer and staff relationships to help engage students in the learning process. This motivation and engagement can result in higher grades, higher test scores, and an ability to earn enough credits to transition to the next grade level. Students who develop a strong sense of efficacy, both self and collective, can accomplish goals better than students who lack this worth (Bandura, 1986; Sampson, Morenoff, & Earls, 1999; Goddard, 2001; Aiken, 2002).

Remediation and intervention programs have typically been reactive in nature. Schools can no longer afford to be reactive, and instead, must design programs that meet the students where they are before failure becomes a way of life. Educators must become familiar with the instructional strategies and the programs that are working and not working around the nation. Programs like Upward Bound, Talent Development High School (Calderon et al., 2005), Project Transition (Quint et al., 1999), S.L.A.M. (Black, 2005), Baltimore's Teach Baltimore Summer Academy (Borman & Dowling, 2006), Chicago's Summer Bridge Program (Stone, Engel, Nagaoka, & Roderick, 2005: Buchanan, 2007), and local programs such as Bearcat Pride (Caldwell, 2007), Keep the

Promise (Mass Insight Education and Research Institute, 2005), and the two-pronged program being evaluated by Cook and his colleagues (2014) can provide helpful insight into what might work inside schools across different cultural settings. No one program or combination of programs fits all districts or all students, but as Corrigan, Grove, and Vincent (2011) state "we must . . . be committed to collecting the evidence that can inform us about where we are . . . and also provide us feedback" on how to improve (p. 240).

When Jerry Weast, the new superintendent of a divided district, addressed the stakeholders of Montgomery County Public Schools, he stated that resources should be "distributed for equity because it was [not only] the right thing to do, [but that] it was the smart thing to do" (Childress, Doyle, & Thomas, 2009, p.27). Implementing programs and ***re***-mediating remediation is not only the "right thing" to do for students but also the "smart thing" to do for public education and the public who depends on it to educate the future. The cost of high school dropouts and alternate educational pathways for failing students far surpass the cost of doing things right for students who are struggling and considered "at risk" while they are inside the public schoolhouse. Creating human, cultural, and social capital for every child yields a more complete student – a student ready to graduate and ready to contribute to a democratic society. Success breeds success, and educators are tasked with finding the way to help every student find this success. Defining *success*, like ***re***-mediating remediation, is the key. It is the "experience" of school that matters, and Rose's (2009) question, "Why school?" has never been more relevant.

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Appendix A: School Approval

Informed Consent Form
An Impact Program Evaluation of ESPIN
Edmond North High School

Purpose of the Evaluation Plan:

The purpose of this program evaluation is to determine the impact that Edmond North High School's ESPIN remediation and intervention program has on the achievement, attendance, and school conduct of program participants. This study seeks an estimate of impact that is largely attributable to the program itself, rather than other factors.

Procedures:

This impact evaluation science study will utilize preexisting data that is typically collected and utilized by school leaders at the school site. This consent form will be obtained from site administrators to access and use the data for this research project. A variety of statistical methods not typically utilized by the school will be used to provide feedback on the ESPIN program and its impact on program participants. The principal researcher will not have direct contact with students involved in the evaluation study, but will be allowed access to extant data of qualifying students' demographic information, testing records, attendance records, discipline records, grade point averages, through the school's student data management system Power School.

The freshman principal and coordinator of the ESPIN program at Edmond North High School will provide the researcher information from the students who qualified for, were invited to participate, participated, and those who opted out of the ESPIN program during the 2010-2014 school years. The researcher under the supervision of the freshman principal and/or the school data manager will create a spreadsheet which includes student demographic information (gender, race/ethnicity, and economically disadvantaged status), testing OPI scores, grade point averages, number of discipline occurrences, and attendance information throughout the 2010-2014 school year four year period. This data will then be coded so as not to reveal any student or family directly to the researcher. This de-identified data will utilize study numbers beginning with 001 for all participants. De-identified electronic data will be kept securely on the researcher's laptop and protected with a password. The data key will be kept at the school site level with password protection and destroyed at the end of the study.

Risks and Benefits:

There are no known risks associated with this research. This evaluation can be used as an assessment for analyzing and improving the ESPIN intervention program. The use of the quantitative data can provide a picture of objective-based results to identify the program's effectiveness in meeting its goals. This type of research can also provide educators a better understanding of intervention options for helping all students find success. Bridge programs, student-teacher relationships, peer grouping, technology, and career counseling are all components that may contribute to a successful high school intervention program.

Confidentiality:

No identifying information will be associated with this research. The data will be coded and stored electronically with password requirement for access. The data key, held by site administration, will be destroyed at the conclusion of the research project. The results obtained from this study may be used for writing reports, scientific journals, or presented at educational research meetings.

Compensation:

There is no compensation in this evaluation project.

Documentation of Informed Consent

Edmond North High School by proxy of its active representative, Mack M. Mitchell, Freshman Principal and coordinator of the ESPIN program, voluntarily agree to participate in this evaluation research project. Your signature certifies that you have decided to consent to a program evaluation, having read and understood the information presented. You will be given a copy of this consent form to keep.

School Official Mack M Mitchell, Freshman Principal

Signature Mack Mitchell Date 4-18-15

Researcher Signature Date 4-18-15

Principal Researcher: Teresa Wilkerson
Doctoral Candidate
University of Oklahoma

Appendix B: IRB Approval

The UNIVERSITY of OKLAHOMA

Institutional Review Board for the Protection of Human Subjects

Approval of Initial Submission – Exempt from IRB Review – AP01

Date: April 27, 2015 **IRB#:** 5455

Principal Investigator: Teresa Lynn Wilkerson **Approval Date:** 04/27/2015

Exempt Category: 4

Study Title: An Outcome Based Evaluation of an Intervention and Remediation Program for High School Freshmen

On behalf of the Institutional Review Board (IRB), I have reviewed the above-referenced research study and determined that it meets the criteria for exemption from IRB review. To view the documents approved for this submission, open this study from the *My Studies* option, go to *Submission History*, go to *Completed Submissions* tab and then click the *Details* icon.

As principal investigator of this research study, you are responsible to:

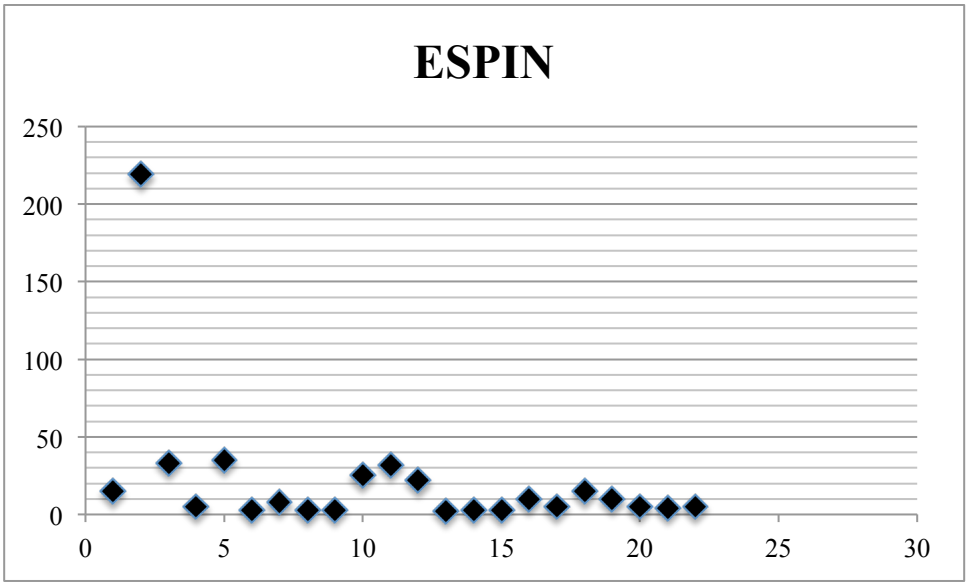
- Conduct the research study in a manner consistent with the requirements of the IRB and federal regulations 45 CFR 46.
- Request approval from the IRB prior to implementing any/all modifications as changes could affect the exempt status determination.
- Maintain accurate and complete study records for evaluation by the HRPP Quality Improvement Program and, if applicable, inspection by regulatory agencies and/or the study sponsor.
- Notify the IRB at the completion of the project.

If you have questions about this notification or using iRIS, contact the IRB @ 405-325-8110 or irb@ou.edu.

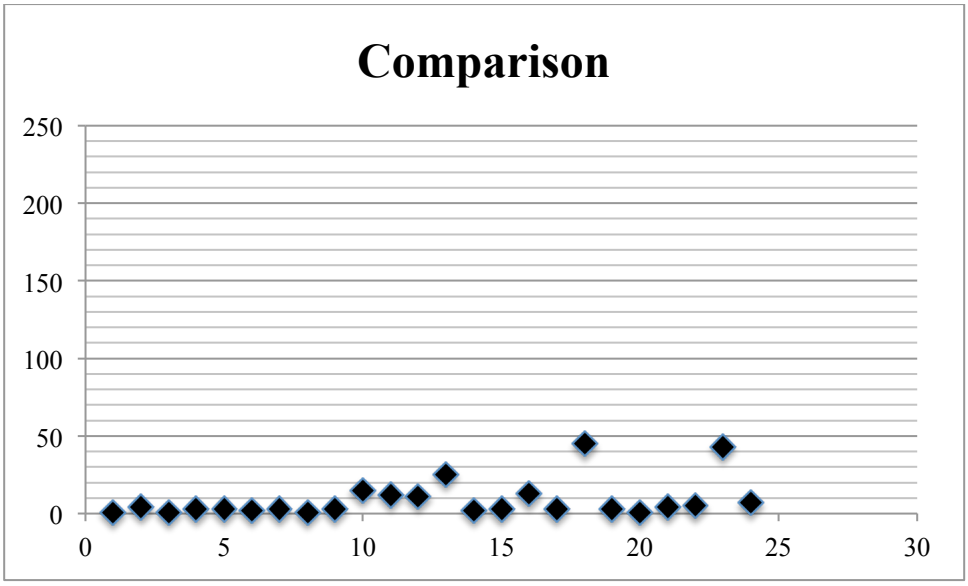
Cordially,

Aimee Franklin, Ph.D.
Chair, Institutional Review Board

Appendix C: Student Discipline Scatterplots



Note: Vertical axis = #of days out of class. Horizontal axis = #students



Note: Vertical axis = #of days out of class. Horizontal axis = #students