2014

The Evaluation of an Environmental Leadership and Service Program's Effectiveness

Roberta Harlow McFarland
Walden University

Walden University

COLLEGE OF EDUCATION

This is to certify that the doctoral study by

Roberta McFarland

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Anissa Harris, Committee Chairperson, Education Faculty
Dr. Pamela Harrison, Committee Member, Education Faculty
Dr. Ann Jablonski, University Reviewer, Education Faculty

Chief Academic Officer

Eric Riedel, Ph.D.

Walden University
2014

Abstract

The Evaluation of an Environmental Leadership and Service Program's Effectiveness

by

Roberta Harlow McFarland

MA, Stephen F. Austin State University, 1983

BS, Springfield College, 1979

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

December 2014

Abstract

According to a recent report from the National Center for Educational Statistics, approximately 20% of the United States' high-school aged population is at risk of dropping out of high school, an outcome that strongly limits participation in economic and educational opportunities. The importance of earning a high school diploma has increased many local districts' efforts to close graduation gaps across the student population. Accordingly, this study evaluated a recuperative environmental leadership and service (EL&S) program in a northwestern local district to ascertain its effectiveness in providing at-risk students the personal and academic support required for high school graduation. Following the logic model program theory, this study examined the program's effectiveness in redirecting off-track students by comparing on time (4 year) and extended-time (> 4 years) graduation rates of at-risk students who did participate (n = 96) and did not participate (n = 76) in the EL&S. Through an ANCOVA, the 4 year and extended graduation rates, 68.3% and 89.1%, respectively, were analyzed and found to be higher than the on-time and extended-time graduation rates for the local district, 65.8% and 68.5%. Results indicated that the EL&S does statistically increase the participants' likelihood of graduating from high school. These findings illustrate the utility of EL&S interventions for at-risk students who have experienced multiple indicators of educational failure. Replication or adaptation of this EL&S program could provide social change benefits to educational stakeholders seeking to close the graduation gap; to families seeking educative and personal support for at-risk students; and to struggling students desiring to contribute to the economic, educative, and social growth of their community.

The Evaluation of an Environmental Leadership and Service Program's Effectiveness

by

Roberta Harlow McFarland

MA, Stephen F. Austin State University, 1983

BS, Springfield College, 1979

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

December 2014

Dedication

To the EL&S Staff: This dissertation is a tribute to your dedication and passion, long hours, and great humor in supporting a successful learning experience for ALL students. It is also dedicated to all educators who tirelessly advocate for authentic educational experiences for the success of all students, especially with classrooms in the outdoors!

Acknowledgments

I would like to express my thankfulness and gratitude to my family, friends, and colleagues who have supported me throughout this amazing journey. I greatly appreciate all the contributions of my committee members, especially Dr. Lisa Daniels for a great start, Dr. Anissa Harris for a strong finish, and Drs. Pamela Harrison, and Ann Jablonski for their expertise and direction throughout the process.

A big thank you to the visionary leader Carl Jensen …. In addition, to the superintendents and staff that followed, keeping the legacy of residential outdoor environmental education programs alive for all students.

Thanks also especially to my family:

- Joan and Charlie Harlow, my parents, who gave me the gift of education, and more importantly a life of residential camping and outdoor education, coaching and cheering me on as I climbed the peaks.
- Kathryn and Rebekah, my daughters, continue to *Reach* out for all the opportunities life presents to you! Travel, explore, and find your inner nerd!
- Rob McFarland, my husband, who supported me in his own unique way, following my career in residential outdoor environmental education across the country when fabulous job opportunities presented themselves, and for his encouragement to embark on and complete my doctoral journey.

Table of Contents

List of Tables

List of Figures

Section 1: The Problem

Introduction

The importance of a high school diploma to American students' future economic and educational opportunities is well documented (Levin, 2009; Mudge & Higgins, 2011), many students in the United States believe that high school is unauthentic, lacking relevance, and boring (Bridgeland, Dilulio, & Balfanz, 2009). These student feelings and perceptions about school are often manifested as disengagement from school (Bridgeland et al. 2009). The Bill & Melinda Gates Foundation (Gates, 2010) stated that students who disengage from school can exhibit poor attendance, a lack of credits due to course failure, and few or limited relationships within the school. These are also characteristics of students at risk of educational failure. Students with these characteristics frequently drop out of high school (Allensworth & Easton, 2005; 2007; Balfanz, Wang, & Byrnes, 2010). School districts need to investigate avenues to redirect at-risk students so that they may achieve educational attainment, specifically high school graduation (Power, 2008).

Many districts implement special programs in order to encourage graduation, even among at-risk populations. These programs are designed to provide support, assistance, or other resources to promote the outcomes desired by the district and state objectives (Allensworth & Easton, 2007; Balfanz et al., 2007; Gates, 2010). This study examined a program in a local district in a northwestern state that has implemented a recuperative program to better connect at-risk students to the learning environment, in hopes of promoting student success as well as high school graduation. Over the 13 years

of this program's existence, its administrators have gathered qualitative and quantitative data including indications of participating students' feelings and their educational outcomes after participation. Although the qualitative data have been analyzed and indicate positive program impact, this program's effectiveness has never been evaluated formally or holistically. I conducted a program evaluation of this local environmental leadership and service program (EL&S) in an effort to ascertain this program's effectiveness, with the overall goal of enabling the administration to make data-based decisions to benefit students who are at risk of educational failure, to allocate resources, and potentially expand programs.

Definition of the Problem

An important duty of educators is to know whether an educational program supports educational attainment in the community they serve. The problem facing the local district was that officials did not know whether or not the EL&S actually improved graduation rates for high school students at risk of educational failure (i.e., dropping out of school). It was important to assess the effectiveness of the EL&S in supporting educational achievement of the high school diploma in order to determine the efficacy of the program in relation to resources used in support of the local district graduation goals.

Educational attainment, as evidenced by a high school diploma, is an important criterion for success in life (Balfanz, 2009). Many school districts across the United States struggle to develop programs and curriculum to address this important problem, as evidenced by low graduation rates (Allensworth & Easton, 2005; 2007; Balfanz et al., 2010). Heckman (2011) posited that educational attainment is an issue of equity and

economics for American society. According to the U.S. Census Bureau (2012), a high school dropout can expect to earn $20,241 annually—$ 10,236 less than most high school graduates and $36,424 less than a college graduate with a bachelor's degree. Additionally, citizens with higher levels of educational attainment benefit society with increased tax revenues, better family mental and physical health, and decreased dependence on government (Mudge & Higgins, 2011). The many ramifications of dropping out of college were summarized by U.S. President Barack Obama (as cited in Balfanz, 2009)'s statement, "Dropping out of high school is no longer an option. It's not just quitting on yourself; it's quitting on your country" (p. 21).

Educational researchers have identified several early warning predictors of a student's ability to graduate high school. Primary among those is a lack of school credit accumulation in accord with one's peer group. Educational research corroborates that recuperative programs can provide the academic and affective support needed to help students renew their interest in schooling and get back on track for high school graduation (Gates, 2010; Hammond, Linton, Smink, & Drew, 2007). Recuperative educational programs are designed to provide guidance for recovering lost credits and enhance academic skills to support graduation for participants at risk of low educational attainment or dropping out of high school

Recuperative program success relies on program design and implementation based on characteristics that incorporate teaching strategies to address the whole student. Successful recuperative programs develop the characteristics of social awareness and self-awareness skills framed in social emotional learning (SEL) (Durlak, Weissberg,

Dymnicki, Taylor, & Schellinger, 2011). These SEL skills are modeled, assessed, and taught as part of the non-cognitive desired traits (Allodi, 2011a; 2011b; Durlak et al., 2011).

Hammond et al. (2007) noted that dropout prevention programs use a combination of personal assets and skill building, academic support, family outreach, and a change in the school environment. Experiential education programs that use adventure programming and service learning pedagogy may provide authentic learning experiences that encourage students and keep them in school for educational attainment (Glover, 2013). In this project study I evaluated a recuperative environmental leadership and service program's (EL&S) effectiveness on high school graduation rates of at-risk students.

This study specifically examined programs at a local school district with low graduation rates in the Pacific Northwest. The local districts' on-time graduation rate in 2011-12 for the 4-year high school cohort was 65.8%, and the extended graduation rate was 68.5% (OSPI, 2013). The State of Washington had a 4-year high school cohort graduation rate of 77.2%, indicating the local school district's graduation rates were well below the state average (OSPI, 2013). This district made efforts to improve graduation with academic interventions such as Saturday school and use of advisory groups; however, graduation rates remained low for the local district. They supported an EL&S recuperative program to help students graduate and get back on track. However, they did not know if this program was directly affecting graduation rates. A program evaluation

was necessary and the missing link in determining the effectiveness of the EL&S towards the local district graduation goal.

The local northwestern school district implemented a recuperative environmental leadership and service program (EL&S) that incorporates many of the best practices of dropout prevention programs. The problem leading to the project study for the local school district was to assess the effectiveness of the EL&S to support high school graduation. Through evaluation, the stakeholders determined the EL&S program's effective recuperative path toward graduation. In the following section, I presented the rationale of the need for a program evaluation.

Rationale

Program evaluation is an important component of quality assurance and alignment of instructional practice with identified student achievement outcomes (Bucher, 2010). A northwest district needed to assess the effectiveness of a program designed to help students attain graduation. Educational attainment, recognized as completion of a high school degree, is an important societal goal and the paramount duty of all local school districts (Levin, 2009; Mudge & Higgins, 2011). Gates (2010) described the importance of identifying students at risk of educational failure and providing a variety of programs that incorporate best practices with recuperative programs. The local district data illustrated the loss of one credit as a first semester freshman reduces the chances of graduating in 4 years to 53% (A. Spicciati, personal communication, August, 22, 2013). The 2011-12 and 2012-13 school years identified 44% and 43% of students, respectively, as off track to graduate based on lack of credit attainment (S. Updike, personal

communication, July 29, 2013). The district strategic plan articulated that 90% of students from the current freshman class graduated (XLSD, 2013a). Reaching this goal required recuperative intervention for credit attainment. The EL&S program offers such an opportunity; but, though it has been in existence for over a decade, no analysis had yet been conducted to determine the program's effectiveness or the impact of participation on high school graduation rates.

Allensworth and Easton (2005, 2007) recorded a connection between low graduation rates and loss of attempted credits as early as freshman year. In their 2007 study of Chicago schools, they reported that

> The on track indicator is highly predictive of graduation . . . [but] there are several related measures of how well students do during their freshman year that are equally predictive and more readily available, including freshman-year GPA, the number of semester course failures, and freshman-year absences. (p. 3)

In their longitudinal analyses of graduation trends, Allensworth and Easton (2007) concluded that these factors, based on the following definitions, are sound predictors of high school graduation:

> **On-Track:** A student is considered on-track if he or she has accumulated five full credits (ten semester credits) and has no more than one semester F in a core subject (English, Math, science, or social science) by the end of the first year in high school. (p. 4)

> **Number of Semester Course Failures:** We measure failures across all courses by semester . . . overall course performance, not just performance in core subjects. (p. 4).
>
> **GPA:** [This factor] is measured by unweighted GPA for all credit-bearing courses. (p.5)
>
> **Course Absences:** Absences are counted on a course-by-course basis and then aggregated into total number of days absent. (p. 5).

The Allensworth & Easton studies (2005, 2007) provide valuable insight into graduation from the vantage of the freshman student. From their work, it is clear that although being *on-track* in a broad sense predicts graduation, an in depth look at these other factors provide more insight into understanding graduation rates, especially for anyone developing or supporting student focused interventions. Because course failure directly affects a student's GPA and course credit attainment, factors directly linked to graduation, it accurately predicts graduation rates 80% of the time.

The local district in this study also identified credit attainment as a reliable indicator for graduation status. In analysis of local district graduation data, the loss of one credit (1 year long course failure) reduced a freshman's ability to graduate in 4 years to 53%. While with the loss of two credits a freshman had a 44% chance of graduating than students without loss of credits (A. Spicciati, personal communication, August 22, 2013). In order to improve matriculation, this local district used these indicators of off track behaviors to identify student participants for the EL&S program participation.

Although the local school had gathered data on the EL&S program over its 13-year existence, these data had not been fully analyzed at the start of this study. Participants already provided qualitative and quantitative indicators about their participation in the EL&S program on an annual basis, but only the qualitative comments were being collected, restricting review of the program impact on students to an anecdotal basis. NCLB requires district graduation data to be collected and analyzed; however, the data were not disaggregated for EL&S participants and program purposes prior to this study. This local district, therefore, had not used the quantitative district data regarding this program's impact on graduation rates as a basis for any program or district decisions. An examination of the 13 years of available district data revealed this program's impact on at risk students to understand the program's effectiveness related to helping these students graduate.

The local school district was previously the subject of a 2007 alternative education study. This study, financed by a Gates Foundation grant, was commissioned by the school district and reviewed the EL&S program as one of 10 programs reviewed (McNeil, 2007). McNeil's recommendations for improving program effectiveness included increasing program capacity, and tracking student participants' high school completion rates. This gap in the EL&S practice of tracking participants' graduation rates was revisited during recent meetings with district administration (meeting notes, June 7, 2012).

The EL&S lacked analysis of existing district data to determine the program's impact on student participants' graduation rates and was a missing piece that could guide

programming decisions. The local district administration needed to ascertain and assess the degree to which the EL&S program supports graduation attainment (meeting notes, June 7, 2012). Increasing the graduation rate to 19 out of 20 students was part of the local district's strategic plan (XLSD, 2012). The local district needed to determine if low graduation rates were addressed through participation in the EL&S. A gap existed in analysis of collected empirical data to discover how the EL&S program affects graduation rates. My study addressed the local district's lack of understanding in regards to the effectiveness of the EL&S and provided a method of closing this gap: a summative program evaluation using the logic model framework.

Definitions

This section will define particular terms to support greater understanding and clarity. The definitions are specific to my study.

Environmental leadership and service-learning program (EL&S). A recuperative program that, in the context of this study, includes adventure education, experiential education, environmental education and service learning. EL&S programs are designed to provide instruction and authentic leadership experiences within the theme of environmental education. Service learning opportunities include environmental restoration, leadership and role modeling for younger youth in a residential outdoor education setting (XLSD, 2013b).

Adventure education. An educational philosophy as well as an educational methodology. Adventure education includes activities that have a perceived risk students

must overcome for success, i.e. backpacking, snow shoeing, and challenge courses (Breunig, 2005a; Knapp, 2010; Warren, Mitten, & Loeffler, (2008).

Credit attainment. For the purpose of this study, credit attainment will be described as passing all assigned classes. Students who fail classes will be considered at risk of educational failure (Allensworth & Easton, 2005).

Educational attainment. Educational or academic attainment is the goal of providing every student a successful path to high school graduation with the skills and education to be successful in additional schooling, work and life (Levin, 2009; Mudge & Higgins, 2011). Educational attainment and high school graduation are interchangeable terms for this study.

Evaluand. A program or component being studied (Donaldson & Lipsey, 2006). In the context of this study, the term evaluand refers to the EL&S program's philosophies and pedagogy.

Experiential education. An educational method where the teacher frames a learning opportunity for students; the students participate in the activity or experience and then reflect and create meaning from their participation. Experiential Learning actively engages the student through facilitated direct experiences by the teacher (Breunig, 2005a; Dewey, 1938). Kolb (1984) developed an experiential learning cycle that includes four stages for learning: the concrete experience, reflective observation, abstract conceptualization and active experimentation.

Extended graduation rates. Extended graduation rates will include students that graduate 5 years and 6 years from their freshman cohort (Allensworth & Easton, 2007;

Bridgeland et al., 2009; XLSD, 2013a). For example, a student that enters high school in Fall 2013 and graduates in 2018 would be considered as a 5-year graduate and a 6-year graduate if the same student graduated in 2019.

Graduation rates. On time graduation rate is matriculating 4-years from the time a student enters, as a freshman and extended graduation rate will be defined as graduating after the student's freshman cohort year (Allensworth & Easton, 2007; Levin, 2009). For example, a freshman cohort enters high school Fall 2013 would be labeled the graduation class of 2017.

Logic model for program evaluation. A framework for program evaluation that incorporates a theory of change for desired results based on program inputs (resources), processes (activities or strategies), outputs (tangible results), and outcomes (impact or benefits). The first two components are the planned work and the last two are the intended results of the plan (Frechtling, 2007; Kellogg, 2004; Knowlton & Phillips, 2013; McNamara, 2013).

Recuperative program. Designed to support students to gain the necessary classes or class recovery, and skills for educational attainment towards graduation (Gates, 2010).

Service learning. An experiential learning activity in which students learn by providing a service to the school community or larger community (Richards et al., 2013). Service learning activities may include working to repair riparian zones, assist in a classroom, or serve as a leader in a cabin group during a residential outdoor environmental education program.

Students at risk of educational failure. Students at risk of educational failure will be defined as students that have at least one identified risk factors such as attendance under 90%, class failure, behavior referral, or failure to pass a state required test for graduation (Allensworth & Easton, 2007).

Social emotional learning (SEL). SEL is defined as intentional instruction supporting the social and emotional development of the students. Skills included in SEL are social awareness (relationships), self-awareness, perseverance, decision-making, and goal setting (Durlak et al., 2011).

Significance

Stoiber (2011) called for the need of evidenced-based practices of school innovations that incorporate SEL successfully. Moreover, many educational researchers call for using evidence to guide school improvement (Coburn & Talbert, 2006; Heberger, Christie, & Alkin, 2010). This project study of the EL&S has the potential to provide the aforementioned evidence of the *real* power of SEL and EL&S integration with academics. The relationship between participation in the EL&S and graduation rates has been identified as a benchmark for understanding program efficacy (McNeil, 2007). The results of this study provides impetus for the district to include more of the research-based practices regarding the affective domain and program pedagogy with the positive results of the EL&S integrated approach on students at-risk for educational failure in the local district. EL&S components included in recuperative programs have been identified as an element in support of students' graduation, which is the focus of my study.

Educational research has identified indicators that can predict students' chances for either graduating or dropping out of high school as early as 8th grade (Allensworth & Easton, 2007). Paramount among those indicators is credit attainment in accord with the student's peer group. Recuperative programs that assist students to get back on track for graduation are one strategy for school districts to support graduation of students at risk of educational failure. Research indicates those programs with strong affective elements as well as an academic focus are likely to have the most positive impact. The district in this study has had such an integrative program in place for over a decade; however, the effect on participants' actual educational attainment via high school completion has never been investigated.

Despite positive anecdotal evidence from students, high school counselors, and parents, the program has not achieved full implementation. Investigating the impact between program participation and educational attainment provided the evidence needed to sustain and expand. This investigation supported closing the gap in program practice through the retrieval and analysis of archival district data. Closing this gap in practice provided the school board of directors the necessary evidence to make decisions on the efficacy, efficiency, possible expansion or restructuring, and continued or enhanced funding of the EL&S program.

Guiding/Research Question

Program evaluation is an important, and often overlooked aspect of program implementation. The use of state and local district data to determine effectiveness of

program outcomes is a necessary component in guiding programs for success in reaching their objectives and goals.

Accordingly, the goal of this project study was to assess the effectiveness of the EL&S in support graduation for students at risk of educational failure. The EL&S has operated since 2001 with anecdotal evidence of success; however, no empirical data have been analyzed to affirm higher graduation rate than similar students at risk of educational failure compared to EL&S participants. This study addressed this gap. The guiding question for this study was: Is this recuperative EL&S program effectively supporting improved graduation rates for the local district? Or, restated, what is the impact of the EL&S program on participating students' graduation? Specifically, the study explored how the graduation rates of EL&S program participants' compared to those of their non-participating at-risk counterparts. The program graduation data in comparison to similar students at risk of educational failure provided a valid comparison for district administration for resource allocation and perhaps program expansion. Furthermore, the results of this summative program evaluation provided the impetus for a formative evaluation(s) of the program processes to determine if changes or expansion were needed to support improved high school graduation rates.

The inception of this project study for the EL&S program began as an attempt to validate the change theory and program philosophy that when students are provided an educational experience that is based on a SEL curriculum, rich in authentic educational experiences, and environmental leadership as the integrating concept–students' at risk of educational failure would be successful in graduating high school. The problem facing

the local district was assessing the graduation rates of EL&S participants. The EL&S is a recuperative program for students at risk of dropping out of high school that to date has not conducted an evaluation to ascertain the effect of participation in the EL&S on graduation. A summative evaluation identifying EL&S participants' graduation rates and comparing them to a similar cohort of students was needed to determine the extent to which the program has improved graduation rates.

Review of the Literature

The EL&S program philosophy was designed based on the conceptual and pedagogical theories of experiential education–including environmental and adventure education, project based or expeditionary learning, and service learning; coupled with SEL practices. The EL&S is a unique program developed with the distinctive resources and community attributes of the local northwestern school district. However, the effectiveness of the EL&S has not been determined. Smith (2013) articulated the importance of choosing the correct evaluation design based upon the culture of the organization and needs of the program. Smith further stated the need to discern both the benefits and limitations before choosing a program evaluation methodology. Following Smith's advice, I conducted a multi-approach search to learn about program evaluation with programs similar to the EL&S and for literature on various program evaluation methods.

I began with a search for educational literature through a review of the membership organizations in professional associations: Association of Experiential Education (AEE), Residential Outdoor Environmental Education (ROEE), and

Residential Environmental Learning Centers (RELC) coupled with numerous years of professional involvement in experiential and residential outdoor environmental education professional organizations, for literature and program practices. I found no evidence of a similar program to replicate an evaluation protocol.

Walden University and the local participating school district libraries were used to obtain sources for the literature review. I used Education Resources Information Centre (ERIC), Education Research Complete (EBSCO Publishing), Google Scholars, and Sage databases to find current, peer-reviewed articles. The following key words and Boolean terms were selected for review by literature *program evaluation, logic model, adventure* and *experiential learning programs, outdoor education, educational evaluation, evaluation theory,* and *social* and/or *educational change theory.* I found program evaluation literature from the 1970s—1990s discussing the value and merit of different approaches and a dearth of literature until the past 5 years. My research has found minimum meta-analysis of program evaluation.

I also mined the reference section of articles pertinent to my study. Priority was given to articles and studies within the last 5 years, although older, original, or seminal sources were cited for foundational principles as were appropriate. In addition, books written by prominent evaluation experts were also consulted. These books were found through Google Scholar and books available in my library and the professional libraries in the local participating school district. The following review of evaluation literature provided me with an understanding of the historical significance of program evaluation

and guidance to determine an appropriate approach for the evaluation of the EL&S program.

Theoretical Foundation

Early evaluation literature of adventure and experiential education programs was based on anecdotal statements and often sounded like marketing material (Hattie, Marsh, Neill, & Richards, 1997). Similarly, Sheard and Golby (2006) found anecdotal evidence continued to frame the attempts of evaluation for experiential education program. Adventure education research conducted by Hattie et al. (1997) was a meta-analysis of educational outcomes in adventure education programs and became the seminal paper that explored the commonality of themes to describe specific educational outcomes. These themes include leadership, self-concept, academic, personality, interpersonal, and sense of adventure. Since the work of Hattie et al., experiential and service learning programs have incorporated program evaluations based on these six themes (Glass & Benshoff, 2002; Hindes, Thorne, Schwean, & McKeough, 2008; Larson, 2007; Richards, et al., 2013; Seaman, 2009; Sibthorp, 2003; Uroff & Greene, 1991; Yazzie-Mintz, 2010). However, outcomes of the program evaluation often looked to quantify the behavior changes after a summer adventure program or wilderness program for youth (Hattie et al., 1997).

Experiential and adventure programs are often part of non-profit organizations, similar to Outward Bound and summer camp programs, not school district sponsored for educational attainment. In the age of higher accountability, the local school district's inclusion of the EL&S as a recuperative program in support of graduation; highlights the

importance of conducting an evaluation directly related to educational outcomes and district goals. The seminal meta-analysis of Hattie et al. (1997) concluding recommendation included:

> Finally, a major claim underlying the discussion is that research on adventure programs can provide many insights that may inform "regular" educational context. Adventure education programs have been conducted as if they operate in isolation from the educational world. (p.78)

These programs while using philosophical pedagogy (similar to that of experiential, adventure, and outdoor service learning programs) with students that may be at risk of educational failure, they are not an academic program designed to help students at risk of educational failure to graduate school. A program evaluation, which ties the academic outcomes with programs, based on experiential and adventure educational pedagogy is the impetus for my proposed project.

History of Program Evaluation

Program evaluation has its roots in the early 1900s from governmental request for justification of monies spent on public social program both in Europe and the United States of America (Alkin, 2012; Donaldson & Lipsey, 2006; Payne, 1994). Program evaluation popularity grew following World War II after numerous federal and privately funded health and education programs were initiated to gain an understanding of the efficacy of these programs and the cost benefits (Kaufman, Guerra, & Platt, 2006). Most of these programs evaluations were developed through the work of social scientist and evolved from experimental design to a decision making design (Alkin, 2013; Coryn,

Noakes, Westine, & Schroter, 2011; Kaufman et al., 2006). These outcomes serve as the rationale or purpose of many program evaluations

Program Evaluation Rationale Literature

Program evaluation is an important aspect of quality assurance and alignment of curricular and instructional practice with established student achievement goals (Bucher, 2010; Trochim, 2006). The acceptance of program evaluation as a valid (albeit applied) research framework has generated numerous models for program selection as the mandate for greater responsibility has grown. Increased accountability among federal, state, and local educational stakeholders has been imposed by the No Child Left Behind legislation (NCLB, 2002). With this increased accountability, local districts have been mandated to provide graduation rates and other indicators of student's educational achievement; requiring the collection and analysis of student achievement data (NCLB, 2002). The increased awareness of data provides an opportunity for using them to guide instructional practices for optimal student achievement (Coburn & Talbert, 2006). With an understanding of what is or is not working for student achievement, the local district can provide appropriate and necessary resources to support programs and practices for student achievement and educational attainment (Bucher, 2010; Delahais & Toulemonde, 2012; Renger & Titcomb, 2002; Stewart, Law, Russell, & Hanna, 2004; Whittemore, 2008).

Program evaluation in education is a systematic or methodical investigation into a specific set of activities for a purpose with quantifiable goals or objectives (Bucher, 2010; Lodico, Spaulding, & Voegtle, 2010). A program evaluation is used for decision making

in regards to the efficacy or the worth in relation to overall organizational goals (Alkin, 2013; Kaufman et al., 2006; McNamara, 2013; Preskill & Russ-Etf, 2005). Frye and Hemmer (2012) identified program evaluation as a method to determine if the change of the program design had occurred. A thorough program evaluation can additionally guide, support, and for example, determine the EL&S impact or change of graduation rates as identified in my proposed study. In addition, Whittemore (2009) described the purposes of evaluation involve the following objectives:

- Justification of resources
- Assessment of progress towards program objectives
- Measurement of quality and effectiveness of a program
- A focus on improvement of processes and outcomes
- A basis for decision making at the program and organizational levels (p. 24).

In summary, program evaluation is the purposeful collection and analyzing of information (data) to document the effectiveness or impact of a program for accountability and improvement. Popham (2011; 2007) stated that programs need to be held accountable for results, checking the assumptions that created the program.

Types of Program Evaluation

Evaluation authors described two types of program evaluation formative and summative and a few evaluators add a third type—descriptive evaluation (Alkin, 2013; McNamara, 2013). Formative evaluation is an ongoing collection of data used to improve the program at that point in time; it is feedback to change practice. Summative evaluation answers an overall evaluation question to report on the success or failure of a

program to meet the intended goals—specific outcome data to determine success in meeting identified goals used for formal reports. Descriptive evaluation is often qualitative in nature and describes the setting, participants, and stakeholders perceptions for an understanding or current picture of the program (Lodico et al., 2010; McNamara, 2013).

Within these types of evaluation there are several embedded *theories.* Alkin (2013) suggested theories should be used carefully in the field of evaluation; better terms or descriptors would be approaches or models of evaluation. Coryn et al. (2011) also concurred that a pragmatic description of evaluation is warranted, as there is a continuing discussion on the ideological basis of evaluation as a separate research methodology. Scriven (cited in Donaldson & Lipsey, 2006) stated "[I]t's possible to do a very good program evaluation without getting into evaluation theory or program theory" (p. 58). Scriven then declared "the most popular misconception amongst politically correct program evaluators" (Donaldson & Lipsey, 2006, p. 58) is the evaluation needs or is benefited from a logic model or program theory. Stufflebeam (2001) agreed there is not a compelling rationale to recommend theory based evaluation, he is inclined to approach evaluation as a methodology (Christie & Alkin, 2008; Donaldson & Lipsey, 2006). Other evaluators believe there is a need for theory in evaluation (Alkin, 2011; Chen & Rossi, 1990, Donaldson & Lipsey, 2006). These evaluators state the need for evaluation theory as central to a professional identity and while not as empirical or rigorous in the scientific tradition it provides a common language.

Additionally there is a debate in regards to the limitation of program evaluation; it is transdisciplinary, serving other disciplines while also striving for an autonomous status of its own (Heberger et al., 2010). The autonomy of a specific theory of evaluation is, therefore, less clear as many evaluation approaches began in one discipline and then adapted the approach to another. (Heberger et al., 2010). The disciplines that use evaluations include education, health services, and various governmental programs. The approaches used may come from a psychological, sociological, or political science approach of either practitioners or scholars (Heberger et al., 2010; Worthen, Sanders, & Fitzpatrick, 1997). Hence the debate continues on whether evaluation is its own discipline or an applied methodology borrowed from social science. Regardless of the debate, program evaluation can make a difference and support social change by providing a tool for accountability for program resources and program alignment with intended goals. Conducting a program evaluation is a viable way to ascertain the effectiveness of this local school district's EL&S. Evaluations provide data to help stakeholders make decisions in regards to program efficacy.

Approaches to Evaluation

There are two main approaches to evaluation for consideration. Alkin (2013) lists social accountability and systematic social inquiry as the roots of program evaluation. These approaches stem from social science epistemology, the foundation of program evaluation. Many evaluation researchers support the relationships of theory and program evaluation (Alkin, 2013; Christie & Alkin, 2008; Donaldson & Lipsey, 2006). The following sections describe these approaches to program evaluation.

Social Science Foundation (Epistemology)

Social science theory attempts to provide generalizable and verifiable knowledge in regards to human behavior (Alkin, 2013; Donaldson & Lipsey, 2006). While program evaluation can provide insight into the design of programs, the outcome is not generalizable to a larger population. Within program evaluation there are attempts to follow empirical protocols; however, program evaluation is not an academic endeavor to provide generalizable knowledge. Program evaluation is to provide knowledge on the specific circumstances of a program for validation or improvement (Christie & Alkin, 2008; Donaldson & Lipsey, 2006; Lipsey, 1993; Worthen, 1990). The epistemology of social science research serves as the foundation for program evaluation. Program evaluation is the practical application of social science theory in response to a societal need (Alkin, 2013; Chen & Rossi, 1980; Donaldson & Lipsey, 2006). Program evaluation in early literature is described as practical or applied social science for auditing programs and providing data for professional judgment; this description continues today (Lipsey, 1993; Worthen et al., 1997).

Applied Social Science approach (Systematic Social Inquiry)

In this approach, there is a systematic study of the behavior of a specific group in a specific social setting. These studies do not follow strict experimental design and can be seen as utilizing a quasi-experimental design due to the lack of a control group or intervening variables (Alkin, 2013). This type of evaluation provides information at the local level and care should be taken in making generalizations from the findings. Often social science theory can guide the design of the data collection and analysis, however,

true experimental design is not attainable (Donaldson & Lipsey, 2006). Worthen (1990) cautioned evaluators not to use evaluations for predictive power, yet the evaluation can guide and support understandings of a particular program. Lipsey (1993) posited program evaluation could present a causal interpretation by following appropriate treatment theory. Developing a protocol for examining evaluation findings may be beneficial for adding to the knowledge base to prevent or solve societal programs (Alkin, 2013; Christie & Alkin, 2008; Coryn et al., 2011; Donaldson & Lipsey, 2006; Worthen, 1990). Applied social science methodology for program evaluation can provide summative and formative data for decision-making and program improvement

Theory Driven approach (Social Accountability)

Accountability is reporting on goal, outcome, or process justification. This type of evaluation provides oversight to standards. Chen and Rossi (1980) are credited with developing the rationale for theory driven program evaluation, which provided a justification for providing information concerning what a program can and cannot do. Coryn et al. (2011) conducted a meta-analysis of theory driven evaluation and determined very little empirical evidence exists in support of program evaluation theories. However, that stated there is evidence in support of program evaluation as a means for decision making and ascertaining a relationship between practice and program theory, known as the *evaluand*. Theory driven evaluation typically describes and provide a graphic representation of the relationships among the program actions, resources and outcomes (Alkin, 2013; Chen & Rossi, 1980; Coryn et al., 2011). This holistic approach can be used for formative, summative and descriptive evaluations.

Logic Model Program Theory

One theory driven approach to program evaluation is called the logic model. The logic model is a prescriptive approach that can be used in program development, implementation, and evaluation (Kellogg, 2004). The logic model framework for program evaluation is historically rooted in health care and educational program evaluation (Knowlton & Phillips, 2013; Whittemore, 2009). Two national foundations have adopted the logic model as the preferred program evaluation model for grantees (Kellogg, 2004; Knowlton & Phillips, 2013; Whittemore, 2009).

While the logic model reviews outcomes of a program, it also examines the evaluand or program itself; availing the evidence for potential causal interpretations (Donaldson & Lipsey, 2006; Kellogg, 2004). This systematic inquiry into a problem of practice or program is based on a theory of change (McNamara, 2013). The logic model for program evaluation provides a guide or road map connecting the various aspects of the planned program to the expected results (Kellogg, 2004; McNamara, 2013). The roots of this evaluation model have its inception with the work of Chen and Rossi's (1980) multi-goal, theory driven approach as well as Lipsey's (1993) use of Ashby's black box theory. The black box theory was derived from the idea of the input into a " black box" as the treatment with an output as the results. This was the simple linear illustration for an applied or practical research methodology. Inputs are program philosophies, method of instruction, and selected curriculum; the EL&S *treatment* would include adventure and environmental education themes and approaches along with

service learning and leadership curriculum. The expected output is higher graduation rates for students at risk of educational failure.

Proposed Evaluation Approach

I used the logic model to evaluate the EL&S program effectiveness. The EL&S is based on the change theory and program philosophy that when students are provided an educational experience that is based on a SEL curriculum rich in authentic educational experiences, and environmental leadership as the integrating concept–students' at risk of educational failure would be successful in graduating high school. A simple example of the theory follows. The input is students at risk of educational failure, the treatment or *black box* is the EL&S program, and the outputs would be the graduation rates of the inputs. Accordingly, application of this change theory illustrated the EL&S's effectiveness at significantly creating positive social change through increased graduation rates. Education as a means to support society with an educated, productive, and informed citizenry is the foundation of the American dream.

Theory of Social Justice and Change in Education Evaluation

Roots of social betterment through education are an important historical factor of the Freirean approach, education as a change agent for empowering people. Freire is credited for the politicizing of action research (Lodico, Spaulding, & Voegtle, 2010). The Freirean approach provides a compelling rationale from research-based literature on education as vehicle for social justice. Alkin and Christie (2005) presented a strand of evaluation practice in the sociopolitical realm with social justice and social betterment at the crux. Graduation rates nationally and locally continues to indicate that approximately

20% of students do not graduate high school (NCES, 2013). For poor students and students of color, the statistics are higher (NCES, 2013). The students represented in the 20% are less likely to participate in the economic and education opportunities due to the lack of high school completion. In American society, Levin (2009) stated, "educational equity is a moral imperative for a society in which education is a crucial determinant of life chances" (p. 5). Economic and educational researchers have concluded high school graduation has economic value for both the individual student and society (Levin, 2009; Mudge & Higgins, 2011). Freire (1968) supported the connection of economics and education in his humanizing pedagogy. Freire introduced the concept of a humanizing pedagogy as a philosophy of education towards social justice or equity practice for marginalized students and society (Salazar, 2013; hooks, 1994; 2003). Freirean pedagogy is a philosophy of social change through the education of students for the students (hooks, 1994; Salazar, 2013). Social action research is credited to Freire, a tool for combining values to informed action in support of an equitable education (Lodico, et al., 2010). EL&S programs follow the philosophical foundation of Freirean theory of humanizing pedagogy. Student-centered, relationship-based curriculum, like those found in EL&S programs, can support students at risk for educational failure to achieve high school graduation, supporting positive social change if data can validate they are supporting graduation for all students and not just a *feel good* program.

Implications

Program evaluation serves an important role in creating a more just society by ensuring programs are effective in achieving their objectives and supporting quality

instruction and curriculum through incorporating researched based practices (Power, 2008). Evaluating the relationship between the district's EL&S program and graduation will provide valuable data to present school district administration and the school board of directors to make decisions on the efficacy, efficiency, possible expansion or restructuring, and continue or enhanced funding of the EL&S program. Results of the study may inform decisions regarding the integration of EL&S participants back into their home school for academic success leading to graduation. Furthermore, data from this study can be used for program recruitment of students and their families by describing the specific characteristics of students helped by the EL&S. This study's finding was presented in an executive summary and PowerPoint presentation for the local school districts board of directors and administration.

Regardless of the outcome of this study in respect to the graduation rates of students, the thoughtful look at how credit attainment and graduation rate variables are impacted by participation in the EL&S can guide additional studies and may inform the district's decision-making as administration determines if (a) the program should be continued under a revised model with additional research commissioned to ascertain elements that should be added or removed to improve the effectiveness with regard to graduation rates; (b) the program should be expanded to include a mandatory year-long program for all district high school students with credit loss.

Embedding external data analysis, specifically with regard to high school graduation, into the EL&S program evaluation design can support improvement of the student participants' experiences—not only in their preparation for continued schooling

in the home high school, but also in potential educational experiences beyond the high school experience. The thorough review of the impact of a recuperative EL&S program can serve as a model for other districts to replicate. The implications for positive social change through greater high school graduation rates with enrollment in an EL&S are vast.

Summary

Educational attainment of high school graduation is an important benchmark for participation in American society. Knowing a program is successful in supporting high school graduation for all students is a critical role for program evaluation and the missing aspect of this recuperative EL&S program.

Identifying students at risk of educational failure is the first step in finding a path for educational attainment. A leading indicator of students at risk of educational failure is lack of credit attainment in accord to one's peer group. Identifying students at risk of academic failure early for placement in a recuperative program can support educational completion or graduation for students.

A next step after student identification is evaluating the effectiveness of the instructional practices to ascertain whether the program is meeting the local district graduation objectives. The research literature reviewed illustrates the importance of evaluating educational programs. Program evaluation can provide the necessary evidence to determine success or failure; while also providing data for programmatic and/or district decisions. This is an example of the social accountability approach of program evaluation.

The local district has developed and implemented an environmental leadership and service program to address the academic and affective needs of students at-risk. The recuperative and dropout prevention program has anecdotal data pointing to success; however, no study has yet been conducted to examine the impact of program participation on graduation. Low high school graduation rates continue to plague districts across the nation. Through program evaluation, successful programs can be identified; supporting school districts that struggle with low graduation rates with viable options. In the next section of the paper, I describe my research plan to ascertain the educational impact of participation in an EL&S program addressing the societal need for researched based recuperative programs though the logic model evaluation framework.

Section 2: The Methodology

Introduction

This section describes how I evaluated the impact of program participation in the EL&S effectiveness towards graduation with quantitative analysis. A logic model framework for program evaluation guided the process of determining program outputs with retrieved local district archival data for analysis. I chose graduation rates as the benchmark to identify program success because high school graduation is the gateway for successful participation in American society (Heckman, 2011; Mudge & Higgins, 2011). The use of a logic model for educational programs in the United States has gained traction in the past decade, with multiple funders requiring this type of evaluation for funded projects (Knowlton & Phillips, 2013). The selection of the logic model includes and offers support for the potential of future grant applications from the foundational work of this project as an additional rationale.

Understanding the program components that lead to the desired objectives and goals of the program can support decisions for program implementation and expansion. The use of a logic model evaluation enabled the local district determined the effectiveness of the EL&S in support of improved graduation rates. A summative evaluation using the past 6 years of data provided a realistic assessment of the effectiveness of the EL&S in supporting students at risk of educational failure in achieving graduation versus students with the same risk factors who did not participate.

Description of Evaluation

Comprehensive evaluation guided by the logic model is an important tool for determining and differentiating program components with program outcomes (Bucher, 2010; Delahais & Toulemonde, 2012; Whittemore, 2008). Quality program evaluation standards are defined by utility, feasibility, propriety, and accuracy (MacDonald et al., 2001). The Center for Disease Control (CDC) (MacDonald et al., 2001) sponsored a report on evaluation and defined these standards as follows: Utility asks the question is the study pertinent to the organization? The feasibility standard asks if the evaluation activities are minimally disruptive, and realistic. Propriety standard reviews the ethical treatment of people and integrity of the evaluation. Finally, accuracy asks if the evaluation will produce valid and reliable data for sharing and decision-making. The following text outlines the descriptive outline of the evaluation method that I used to incorporate the above standards for a quality program evaluation.

Type of Evaluation

I used the logic model to guide a summative program evaluation designed to determine the EL&S effect on graduation rates of student participants. The logic model framework for program evaluation is designed to demonstrate systemically the relationship between the resources (inputs, e.g. the instruction or methods used) and the results (outputs of the program) (Kellogg, 2004; McNamara, 2013). The logic model framework is often illustrated with a table that includes the following headings or categories: Inputs, Processes, Outputs, and Outcomes (Kellogg, 2004; Knowlton &

Phillips, 2013; McNamara, 2013). These categories support a holistic review and assessment of the EL&S program.

Justification of Logic Model

Program accountability through evaluation is conducted to improve practice and understanding whether a particular program intervention works (MacDonald et al., 2001). The logic model evaluation framework was chosen because it provides a mechanism for describing the program, its inputs and resources as well as the activities that logically lead to the outcomes as a graphically organized flow chart. Providing this visual representation during this analysis will provide an outline for stakeholders to understand the program components and the relationship of the program data analysis. This is an expanded view of all the areas of influence that lead to the program output of graduation for participants in the EL&S. The logic model framework will provide a clear and logical *picture* of the EL&S program resources and inputs to the outputs and outcomes desired by the local school district.

The accuracy standard for quality evaluation discusses the need for authentic sharing of the results that have validity and are reliable (MacDonald et al., 2001). I shared the findings with EL&S peers and the local district assessment and testing staff to check for validity and reliability. The graphic depiction of the EL&S logic model was shared with district administration.

Description of Logic Model Evaluation

Program implementation and evaluation design need to be understood by stakeholders. Consistent language and graphics help to illustrate program deign and

evaluation. The logic model provides a framework for program evaluation in relationship to a theory of change (Frechtling, 2007; Kellogg, 2004; Knowlton & Phillips, 2013). The inputs and processes will lead to specific outputs and outcomes (Bucher, 2010; Hulton, 2007; Kellogg, 2004; McNamara, 2013; Perry, 2008). The W. K. Kellogg (2004) Foundation aptly described the logic model as:

> The program logic model is defined as a picture of how your organization does its work-the theory and assumptions underlying the program. A logic model links outcomes (both short- and long- term) with program activities/ processes and the theoretical assumptions/ principles of the program. (p. III)

Donaldson and Lipsey (2006) posited program theory driven evaluation's primary goal is to establish that evidence based program theory can enhance efforts towards social betterment. My project included these components for a holistic understanding of the EL&S and positive social change for participants. Figure 1 provides a pictorial view of the logic model.

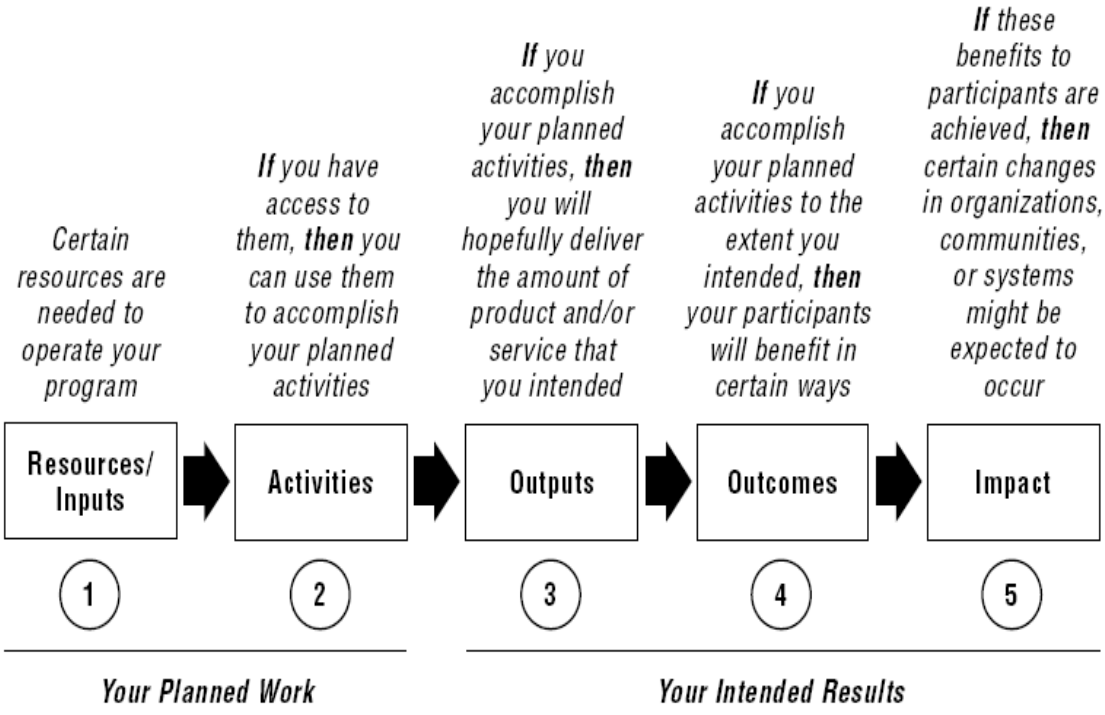


Figure 1. The logic model graphic organizer for program planning. W. K. Kellogg Foundation (Kellogg). (2004). *Logic model development guide*. Retrieved from http://www.wkkf.org/knowledge-center/resources/2006/02/wk-kellogg-foundation-logic-model-development-guide.aspx Reprinted with permission.

Creating social change requires a theory of action or theory of change: a framework to illustrate how to achieve intended results (Lodico et al., 2010). Freirean social justice and education theory of change is embedded in this framework (Lodico et al., 2010; Knowlton & Phillips, 2013). The specific theory of change for the purpose of this project can be described, as identified students at risk of educational failure performance will improve. These students, when given an authentic, project-based, interdisciplinary, environmental leadership, and service program, are redirected towards graduation. Students that participate in an EL&S graduate high school at higher percentages than similar students at risk of educational failure. The use of the logic

model provides a framework to describe and illustrate the various resources and inputs that lead to expected outputs and outcomes.

Evaluation Goals

The overall goal of the evaluation was to determine the effectiveness of the EL&S in supporting students at risk of educational failure to graduate. It was important to ascertain and assess the program's effectiveness because students who graduate from high school are better equipped to participate in American society (Levin, 2009; Mudge & Higgins, 2011). Substantiating the logic of the EL&S philosophy and pedagogy reinforces continued investments for students at risk of educational failure to be full participants in American society, which requires obtaining a high school diploma. The local district has empirical evidence, which answers the overarching research question, the extent to which the EL&S supports increased graduation rates for students at risk of educational failure. The implication of social change for students at risk of educational failure and their families to find a viable pathway to graduation is vast.

Limitations of the Evaluation

The summative evaluation used archived graduation data exclusively as a benchmark, with the assumption that other success factors such as attendance, behavior, grades, and the passing of mandated state tests are embedded in obtaining a high school diploma. This framework supports the feasibility and utility standard of evaluation as the retrieval of archived data should not impact the program and provide an accurate representation of the outputs of the EL&S. Nevertheless, accessing archival data presented challenges. Access to data prior to 2008 was difficult to obtain. During data

retrieval several limitations were found to be true. Access to all participant data was limited due to the transfer of data from outdated student information systems to the current Illuminate© student information system. Student data prior to 2008 had not been transferred to the district's new student information system. The switch over began in November 2013, and no estimate for complete transfer of data was available. Other challenges included inaccurate or vague coding by data entry, and mobility of students to other districts; therefore not obtaining graduation verification.

Data attrition became another limitation. Participant student data for those that transferred out or into the local district would not have a full data set. The attrition of these data decreased my EL&S population sample.

Evaluation Justification and Goals

Understanding the relationship of EL&S participation and graduation requires a evaluation plan to guide this work. Theory-driven evaluation methods as discussed in my literature review are widely accepted and used by major foundations and school systems (Alkin, 2013; Chen & Rossi, 1980; Coryn et al., 2011; MacDonald et al., 2001). Therefore, I used the logic model, a theory driven framework for program evaluation. By using the logic model for the framework of program evaluation, I describe program resources and inputs as well as, activities for a holistic understanding of the program and its outcomes. Frye and Hemmer (2012) discussed the importance of education eliciting a change; program evaluation is the means to document the change desired. The local school district has low graduation rates: 10% lower than the state average (OSPI, 2013). Educational research suggests graduation attainment for all students is possible when

they are offered school programs that empower students with authentic learning opportunities, providing relationships within an authentic learning community (Dewey, 1997; Durak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; WGI, 2010). These educational philosophies are foundational as the processes in the EL&S. When the EL&S program was designed, graduation completion data analysis to measure the change was not considered. This gap in practice was addressed in this study. The goal of this program evaluation was to assess the effectiveness or outputs of EL&S participation on student graduation rates. Specifically, I wanted to investigate with the logic model framework whether EL&S participants have higher graduation rates than their non-participating at-risk counterparts. Examination of the district's archived data since the program's inception in 2001 provided answers to the stated research questions and provided relevant insight to shrink the gap in practice that currently exists with regard to the effectiveness of the EL&S educational intervention for at-risk youth in the district on attainment graduation.

In this study, I examined the existing data on student graduation indicators to determine if EL&S students are adequately matriculating through high school, especially compared to non-participating peers. I ascertained the graduation rates of students to determine the difference between participation in the EL&S and students who have similar off track predictors as described by Allensworth and Easton, (2007) during their freshman year in high school graduation and answering the stated research questions. I chose a narrow approach in determining the effectiveness of the EL&S program with graduation data. I chose this approach because of the emphasis on graduation rates for

school district accountability under NCLB. The overarching objective of high school is graduation; other important indicators of effectiveness such as attendance, grade point average and passing mandatory state testing are implied with obtaining a high school diploma and not germane to the effectiveness study of the EL&S at this time.

Setting and Sample

This study employed a program evaluation study design using archived data to investigate the impact of participation in a school district's EL&S program on academic achievement (high school graduation). Since there are no participants when using archived data, this section described the general setting and characteristics of the archived sample. Demographic specifics will be included in a rich data description from the archived data collected.

The local district is located in the northwestern state and serves approximately 18,700 students (Grades K through 12) in 39 schools. It employs approximately 2,000 staff members and offers a wide variety of educational opportunities from early childhood to college preparation and career and technical education. Currently, nearly 71% of the local district student body qualifies for free or reduced lunch with 37% Hispanic, 24% White, 14% Asian, 11% Black, 8% Multi-Racial, 4% Pacific Islander, and just over 1% Native American (XLSD, 2013). There are two comprehensive high schools with over 1200 students, seven small autonomous high schools with enrollment at or below 350 students, and three small alternative high school programs. The EL&S participants are similar in demographic characteristics. During the program years analyzed, 45% were female and 55% male, 73% qualify for free or reduced lunch, with

35% Hispanic, 35% White, 14% Black, 10% multiple races, 8% Asian, 4% Pacific Islander, and 2% Native American.

The sample included records of all EL&S program participants from the program's eighth year (2008) through the 2012-2013 academic years (n = 145). Data from the first years (2001 – 2007) were unobtainable due to the ongoing data transfer between the new student information system Illuminate© and the previous student information systems of SASI© and eSIS©. I also retrieved data from a similar at risk cohort of non-participating students (n = 105) from 2008-2013. The criterion for selecting this similar cohort was that the student had failed one or more classes and that the student also be in a graduation cohort between the years 2008 and 2013. As a result of these efforts, I obtained two samples of students (n = 250) from the graduation cohort years of 2008 through 2013. These groups were called EL&S program participants and non-participants, respectively. All data were retrieved from the district's archived databases as indicated on the approved Data Use Agreement and collected as approved by Walden University's Internal Review Board (IRB #05-20-14-0281369).

Another step taken and not anticipated was confirming whether either an EL&S student or non-participant transferred to another school district or dropped out. Each student with a missing graduation date found on a state database called the Comprehensive Education Data and Research System (CEDARS) a longitudinal data warehouse, to check for enrollment in another school district after leaving the local district (OSPI, 2014). This system does not identify a graduation date—only that the student continued in a school district. I added this step because district data were unclear

or inconsistent on whether the student transferred or dropped out of school. If students had enrolled in another district, they were labeled *Transfer*; and, if not enrolled in either the local district or another district, I assumed they had dropped out of high school.

Attrition of the EL&S sample (n = 145) occurred as follows. Graduation data were not available for 31 students who transferred out of the district. These students, therefore, were omitted from the sample, reducing the sample size to n = 114. Another 10 students that are currently in the 2015 graduation cohort were also omitted, as well as seven others that were continuing students and not yet to the graduation point. With the reduction of these additional 17 students, the final sample size of EL&S students was n = 97.

The random comparison data set of students (n = 105) was representative of the local district and included the following characteristics: size of home high school (comprehensive or small), number of failed classes freshman year, ethnicity, and gender. Attrition to the comparison group (n = 105) occurred as follows. Graduation data were not available for 29 who transferred out of the district. The final sample size of the non-participating students was n = 76.

The local district assessment and accountability staff created a database of EL&S participants graduation rates and non-participant students graduation rates to answer research question 2: How do the graduation rates of EL&S program participants' compare to those of their non-participating at-risk counterparts? Is there a significant difference between the independent variable, student participation in the EL&S program and the dependent variable, graduation rate?

Instrumentation & Materials

Data collected for this study were archival in nature; therefore, no instrument was employed. District assessment and accountability staff supplied archival data in the form of graduation rates (both 4-year and extended) and freshman credit attainment rates after appropriate permission was granted. With the support from the district evaluation and assessment staff, characteristics required were determined for the appropriate sampling of non-EL&S participants. The data were obtained from district student information systems. In the past years from 2001-2013 these student information programs have included: SASI©, eSIS©, and currently Illuminate©. The Illuminate© student information system provided the data for the student samples used in this study. These data were examined to determine the impact of the EL&S program on participants' graduation rates. Raw data of graduation status as reported to the state and credit attainment at freshman level were designated as either *EL&S participant* or *non-EL&S participant* and available from the researcher upon request.

Data Collection and Analysis

The goal of my project study was to evaluate an EL&S in regards to graduation rates of the participants. The logic model framework served as a template whereas the findings of this component reside in the output section of the evaluation framework. The overarching question is: What evidence exists that the EL&S program is effectively supporting improved graduation rates for the local district? In order to determine the existence of any descriptive or statistical evidence that supports this overarching question, I specifically answered the following research questions.

Research Question 1: What is the impact of the EL&S program on participating students' graduation (on-time and extended)?

Research Question 2: How do the graduation rates of EL&S program participants' compare to those of their non-participating at-risk counterparts?

In order to answer these questions and determine the relationship between participation and graduation, archival graduation and course failure data were collected from the district database and supplied by the local district assessment and accountability director for analysis in this study. These data are nominal (representing whether a student graduated or not), and interval (representing the number of failed courses as a freshman). Records of all students previously enrolled in the EL&S, as well as non-EL&S students who were credit deficient in at least one course between the years 2008--2013 were supplied by the local district and retrieved from the various student information systems used over the past 6 years. The following student information systems were used to collect and maintain data on local district students; eSIS© (2004-2013), and transferred to Illuminate© in 2013

A one-way between groups analysis of covariance (ANCOVA) statistical analyses were conducted on retrieved data for the independent variable (participants) and covariate (number of failed classes as a freshman) to predict graduation rates of participants (dependent variable). Degree of significance was set at $p \leq .05$. The SPSS Grad Pack (Version 21) was the statistical software I used for analysis. Descriptive statistics were used to describe the impact of the EL&S program on participating students' graduation (on-time and extended).

Controversy exists among statisticians on appropriateness of ANCOVA use in social science studies of a non-experimental basis; however, the majority of social science researchers accept the use as appropriate (Field, 2012; Green & Salkind, 2008; Pallant, 2013; Tabachnick & Fidell, 2007).

Variable Descriptions

Dependent variable. The dependent variable for this study was the graduation rate of high school students in the local school district. Both on time and extended graduation rates were determined and presented with descriptive statistics. With each of these databases (participant and non participant), I collected an item called *graduation year of the participant*; also, I created an item called *entered high school*. These two values were coded on a spreadsheet and subtracted so that I determine the number of years spent to achieve graduation. This formula gave the graduation rate. An on time graduation rate was 4 years, and extended graduation rate was more than 4 years. Data were retrieved from the Illuminate© student information system. Graduation rate was reported as a continuous number (4 years, 5 years, 6 years, etc. and no year) and, therefore, an interval variable.

Independent variable. The independent variable in this study was student participation in the EL&S program. Participating students included all students who have participated in the EL&S since 2008. These students were coded as participants for grouping purposes and compared to non-participants. Rosters of all EL&S participants were provided to the assessment and evaluation staff for retrieval of graduation status and freshman class failures. Non-participating students formed a comparison group for the

independent variable, those that are similar to the participating EL&S students in credit attainment as a freshman. All archived graduation data were retrieved from the Illuminate© student information system. The randomly selected comparison group was representative of the local district and had the following characteristics: size of home high school (comprehensive or small), number of failed classes freshman year, ethnicity, and gender. Researchers have determined that freshmen who failed at least one class are at risk of educational failure (Allensworth & Easton, 2007). Therefore, non-participating students who have failed at least one class as a freshman were included in the comparison group. These students were coded as non-participants and compared to the EL&S participants group for differences in graduation rates and represent a categorical variable.

Covariate. The covariate in this study was a student's number of failed classes freshman year. The rationale for the choice of failed classes as a covariate is based on dropout research. Dropout research identified the number of freshman-failed classes as a predictor of graduation status (Allensworth& Easton, 2005; 2007; Balfanz et al., 2007; Balfanz et al., 2010). The local district conducted an internal study to analyzed the relationship that exists between the number of classes a freshman failed and whether they graduated high school. The local district drop out data mirrored national drop out statistics as a predictor of graduation status. A clear trend emerged from the local district's data. As the number of freshman classes failed increased, the number of graduates decreased. Seventy percent of students with no freshman class failures went on to graduate while 42% of students with one freshman class failure graduated. The

trend continued downward, with 3% of students with four or more freshman class failures graduating.

The opposite trend appeared for dropouts within the local district. Of the students with zero freshmen class failures, 9% dropped out. As the class failures increased, the percentage of dropouts continued to increase as well. Thirty percent of the students with four or more fails dropped out (meeting notes, August 8, 2013).

Number of failed classes as a freshman is an appropriate covariate as it is a predictor of graduation (Balfanz, 2009; Balfanz et al., 2010) and represents an interval (i.e. continuous) independent variable (Green & Salkind, 2008; Pallant, 2013; Tabachnick & Fidell, 2007). The covariate, failed classes as a freshman, represents a baseline for comparison to the dependent variable graduation rate.

Assumptions, Limitations, Scope and Delimitations

This study attempted to investigate the effectiveness of the EL&S in regards to graduation rates in a Pacific Northwestern school district. This study has the following assumptions, limitations, and delimitations.

Assumptions. I assumed student data were consistently reported each year. I also assumed the district had graduation and course attainment data available for all high school students enrolled in the district during the academic years between 2001-02 and 2012-13. This assumption proved to be false, as I discovered data were unavailable from 2001- 2007; and, therefore unattainable. I assumed that a freshman one-credit short after the first year of school was *at risk of educational failure*. In addition, I relied on the premise that any significant difference in the ANCOVA statistical test between the

independent variable and graduation, the dependent variable, is a result of participation in the EL&S program and not due to some other intervention or variable (Field, 2012; Tabachnick & Fidell, 2007). Finally, I assumed the EL&S program was implemented with fidelity. The implementation of the EL&S program component philosophies and instructional strategies follows the best practices as found in similar programs and educational research.

Limitations. Limitations to my study include the fact that the EL&S program has not had consistency—differing approaches among faculty, changes in staff, changes in state graduation requirements, and the use of different student information systems have all influenced program delivery in varying ways over the years. Examples of this limitation would include a change in the state-reporting requirement for graduation due to NCLB or the modifications in curriculum that occurred with faculty changes.

During the past 13 years, the district has used various student information systems and student identification number systems have changed. Because of this, I was not able to collect a full data set for every participant. The data set collected included the program cohort years of 2008 – 2013. According to Tabachnick and Fidell (2007) a sample size of 100, is sufficient for this quantitative analysis. An ANCOVA with unequal sample size of the independent variable is acceptable as the ANCOVA operates as if each cell had the same number of subjects- no mean gets weighted more than another (Green & Salkind, 2008).

Scope and Delimitations. The EL&S program is offered to students in one geographic area of the United States, and the findings of this evaluation may not be applicable to other regions or recuperative programs.

Evaluation Limitations

As a summative program evaluation, the project only looked at objective data of graduation as a benchmark. Future program evaluation may include a formative assessment of curriculum, program processes, and instruction. I wanted to ascertain the graduation rate of the program first, and then consider a more thorough formative assessment of program practices to ascertain why the EL&S was successful.

Protection of Participant Rights

Protection of participants is an important component of the evaluation. In this section, I describe the steps taken to protect the data. Data retrieved for analysis were obtained from existing district records. There were no actual *participants* for this study, as I analyzed existing archival data records. District personnel supplied the requested data with all personal identifiers removed. There are, therefore, no participant rights to protect, as all data were de-identified.

As a university student researcher, I gathered data after IRB approval was granted (IRB approval number 05-20-14-0281369). This safeguard provides boundaries for following ethical research procedures and protocol for unexpected situations. I have also completed the National Institute of Health, web-based training course "Protecting Research Participants" (Certificate #1029183), demonstrating my awareness about ethical research procedures.

Findings

This project study was designed to include an outcome evaluate an EL&S program by answering the overarching question: What evidence exists that the EL&S program is effectively supporting improved graduation rates for the local district? Quantitative methods were used to determine the degree of success the EL&S had in supporting the graduation of the program participants. These data provide the output for use in the logic model framework. The findings provide empirical evidence that the logic of the various program components lead to the desirable output as measured in graduation rates. Therefore descriptive data were analyzed to determine what the impact of the EL&S program on participating students' graduation (on-time and extended). Additionally, the question of how do the graduation rates of EL&S program participants' compare to those of their non-participating at-risk counterparts is discussed.

Data Analysis: Research Question 1

To answer RQ1, data were retrieved and analyzed for descriptive statistics. Table 1 shows the actual numbers of students within the EL&S participant sample and the grouping they would fall under in order to use the appropriate students for educational attainment data as described in the setting and sample section of this paper.

Table 1

Educational Attainment of EL&S by Cohort Year (*n* = 145)

EL&S Year	Cohort *n*	On Time *n*	Extended *n*	Dropout *n*	Continuing *n*	Transfer *n*
2008	23	9	11	1	0	2
2009	27	6	5	4	0	12
2010	28	17	2	1	0	8
2011	25	16	2	1	0	6
2012	15	14	0	0	1	0
2013*	27	7	1	0	6	3
Total	145	69	21	7	7	31

Note. The 2013* cohort includes 10 students in the 2015 graduation school year.

The sample size from 2008 to the 2013 cohort began with 145 EL&S program participants. The adjusted sample of EL&S students required culling the data for students who transferred out of the district and students that would be continuing for their fifth year of high school. This total was adjusted by doing reducing the sample with 31 transferred students, 7 continuing students, and 10 students in the graduation year cohort of 2015, leaving an adjusted sample of 97 EL&S participants used for the analyses in RQ1.

After the attrition of the sample, the remaining data were used to ascertain the percentages of students who graduated on time—within 4 years and extended time—over four years. I used the support of the local district assessment and evaluation staff to validate the conversion to percentages in order to compare to state and local data.

Illustrated in Table 2 are the graduation rates for the EL&S program, the local district, and the state. The on time rate for EL&S participants is 68.3%. The extended rate would be 89.1%. These rates compare to 65.8% 4 years and 68.5% extended year for the district in 2012-13. The state rates are 77.2% and 78.9%, respectively.

Table 2

Graduation Rate Comparison

Groups	On Time Graduation Rate %	Extended Graduation Rate %
EL&S participants	68.3	89.1
Local District	65.8	68.5
State	77.2	78.9

Note. Local and state data retrieved from Washington State Office of the Superintendent of Public Instruction, (OSPI). (2014) *Washington State Report Card.* Retrieved from http://reportcard.ospi.k12.wa.us

EL&S participants graduated on time at a higher rate than the local district, yet not as well as the states' on time graduation rate. The extended graduation rate for the EL&S participants exceeds both local and state extended graduation rates.

Data Analysis Research Question 2

The experimental design of ANCOVA was chosen to answer RQ2 based upon the assumption of a linear regression model, and two additional considerations: (1) the independence of the covariate and treatment effect, and (2) homogeneity of regression slopes (Field, 2012; Pallant, 2013; Salkind & Green, 2010). Prior to conducting the ANCOVA, tests of assumptions were applied to confirm the appropriateness of design.

Assumptions include independent variable must be categorical (EL&S participation, non-participation) on a continuous dependent variable (graduation status), controlling for the effect of another continuous variable that also co-varies with the dependent (number of failed classes as a freshman). The homoscedasticity check removed all missing data. Missing data were accounted for with student transfers (in and out of district) and students confirmed as continuing for extended graduation. RQ2 is based on the assumption; failed classes or loss of credit is a predictor of graduation status. The use of an ANCOVA, the covariate (number of failed classes as a freshman) influence is removed, through the correlation and linear regression analysis that is part of the ANCOVA (Tabachnick & Fidell, 2007). By isolating the covariate to number of failed classes the power for generalization is improved (Field, 2012; Tabachnick & Fidell, 2007).

An ANCOVA was conducted to compare the effectiveness of participation in an EL&S intervention in support of high school graduation to similar non-participating students. The independent variable was the type of intervention (EL&S participation, non participation), and the dependent variable consisted of: on time graduation, extended graduation, and no graduation (dropout). Participations' number of failed classes freshman year were used as the covariate in this analysis.

I conducted preliminary checks to confirm that the rules of the assumptions of normality and linearity were supported by the data set. I also checked for homogeneity of variances. When these assumptions were satisfied, I also ran statistical checks for homogeneity of regression slopes and accuracy in the covariate measurement. The

ANCOVA was significant, F(1, 168) = .193, *MSE* = 38.67, $p < .01$. The strength of the relationship between the EL&S participation and dependent variable was very strong, as assessed by a partial η^2, with the EL&S participation factor accounting for 45% of the variance of the dependent variable.

The means (*m*) of graduation status were ordered as expected across the two independent variables. The EL&S participants had the smallest adjusted mean (*m* = 13.65), and the non-participants comparison group had the larger adjusted mean (*m* = 26.45). Table 3 presents the means and standard deviations for the compared groups.

Table 3

Dependent variable: Graduation Status

Group	*m*	*SD*	*n*
EL&S Participant	13.65	6.176	96
Non-Participant	26.45	6.674	76
Total	19.30	9.021	172

The value of 10 represents on time graduation, 20 represents extended graduation, and a value of 30 represents a drop out from high school. Figure 2 illustrates the relationship between the participant groups and the covariate. Using the ANCOVA, the difference between students that failed one or more classes as a freshman and participated in the EL&S was substantiated. The EL&S program reversed the expected graduation status of dropping out for students with multiple failures as freshman, thus graduating high school

able to take part fully in American society more fully (Levin, 2009; Mudge & Higgins, 2011).

Conclusion

When students are identified early and provided intervention, they can get back on track to high school graduation. Evaluating the effectiveness of participation in the EL&S program as a recuperative program for students who are not on track to graduate was the essence of this study. The local school district identified low graduation rates as a problem to be addressed. Using the logic model as a program evaluation framework, this study evaluated the impact the EL&S had since 2008 to 2013 in support of graduation for EL&S participants that have been identified as off track for graduation. Unfortunately, data were not obtainable for all years of the program. However, data indicated the extent this study provided the necessary data to understand the extent the recuperative EL&S program is supportive of improving the district graduation rate. The EL&S students' graduation rates both on time and extended of 68.3% and 89.1% are better than the local district rates of 65.8% and 68.5%. When looking closer at the EL&S as an intervention; EL&S participant data were compared to similar at risk students through an ANCOVA, students participants in the EL&S program had higher graduation rates, both on time and extended than non participants.

The logic model framework provided a picture of the resources and inputs that lead to the outputs and outcomes of the logic model. Knowing that a program empirically supports the local district's goals provides valuable data for program decisions and planning and provided the empirical evidence needed for the output section

of the logic model framework. Identifying various aspects of program design supported evaluation of other program components. In the following section a complete evaluation of the EL&S using the logic model is presented with the outputs described from the empirical data collected and analyzed.

Section 3: The Project

Introduction

The purpose of this section is to present the evaluation findings of the effectiveness of an environmental leadership and service program (EL&S). This project study developed an evaluation of the EL&S program using the logic model. The evaluation was conducted within parameters the of the logic model framework. Improved graduation rates comprised the benchmark used to measure the effectiveness of the EL&S. Additionally, the logic model provided a framework to describe the EL&S as a recognized dropout prevention program with the use of a combination of personal assets and skill building, academic support, confidence building, and a change in the school environment (Hammond et al., 2007; Jackson, 2011). The success of the EL&S as a recuperative program included a review of design and implementation strategies, which addressed the whole student.

This section contains a description and goals of the evaluation, along with the study rationale, a review of pertinent literature, and a description of the implementation and presentation of the evaluation findings. The literature review describes the resources, inputs and theory of action that guided the EL&S program design resulting in the desired outputs and outcomes.

Description and Goals

This section provides a detailed description of the EL&S efforts (resources, philosophies, and outcomes) used to engage disenfranchised and off-track students. The rationale for using the logic model framework was to assess attempts to improve high

school graduation rates. The logic model is a framework for program evaluation, which uses a pictorial flow chart describing multiple aspects of a program from design to outcomes. Clarity of program purpose, design, and outcomes provided transparency for decisions in regards to program continuation and expansion. According to Levin (2009) and Mudge and Higgins (2011), positive social change often occurs through supporting disenfranchised youth to graduate from high school. This approach is consistent with the Freirean philosophy of enlisting and assessing educational practices for social betterment (Lodico et al., 2010; Knowlton & Phillips, 2013)

This project was chosen to ascertain the effectiveness of the EL&S in supporting off-track students to high school graduation. A PowerPoint presentation to the local school board of education and district administration and an executive summary of the evaluation findings in support of high school graduation was the outcome of this project. The presentation informed the various stakeholders of the efficacy and effectiveness of the EL&S for better decision-making in regards to the programs viability within the local districts strategic plan. Transparency through clarity of program purpose and evaluation of outcomes is an important managerial role. Providing the decision makers with accurate research-based data on the EL&S program supports transparency and effective decision making on achieving the local districts improved graduation rates.

Rationale

This evaluation was conducted to determine the impact of a program that has been in existence since 2001. In an unpublished report of 10 alternative education programs in the local school district, McNeil (2007) identified gaps in the ES&L program practice.

One identified gap was the need for better record keeping: tracking participating students after their return to their home school in order to determine the program's impact on high school graduation rates. My study was designed to address this specific gap in practice. Anecdotal evidence such as testimonies from students, parents, and counselors provided glimpses of success; however, a need for empirical data was expressed by district administration. Affirming the success of the program philosophies with graduation success for the EL&S participants was the rationale for the use of the logic model as a framework for the evaluation. The McNeil (2007) alternative education study verified a need for continued support. The logic model provided guidance for future evaluations with additional academic benchmarks and potential direction for formative assessment. This program evaluation has answered the research question and confirms the success of the EL&S with empirical markers of success for the local district edification. Additionally, the logic model provides a graphic representation of the program theory, the logic that produced the desired results, high school graduation.

Review of the Literature

The EL&S program philosophy design is grounded on the conceptual and pedagogical theories of experiential education including environmental and adventure education, project-based or expeditionary learning, and service learning. The EL&S is a unique program developed with the distinctive resources and community attributes of the local northwestern school district. The following literature review describes the theoretical underpinnings of the program in relation to the graduation rates of the EL&S participants. A project evaluation using the logic model guided the evaluation process in

a holistic systems approach. The literature-reviewed supports educational experiences based on relationships between learners and learner/teacher, rich in authentic educational experiences coupled with environmental leadership as the integrating concept. Students' at risk of educational failure would be more successful than similar at risk students when provided the EL&S educational experience.

The guiding question for this study was: What is the impact of the EL&S program on participating students' graduation? Specifically, the study seeks to explore how do the graduation rates of EL&S program participants compare to those of their non-participating at-risk counterparts? The literature reviewed surveyed best practice theories, which guided the development of the EL&S program as a recuperative program in support of high school graduation.

Genre Appropriateness for this Study

This literature review was structured as a summative evaluation using the logic model. It presents four components:

- the resources or inputs used for the EL&S,
- the program assumptions or processes based on current best practices found in educational literature,
- a description of anticipated outcomes, and
- graduation data of program participants labeled as outputs defined by the logic model framework.

Confirming the assumptions or logic of the program provided a feedback loop for program staff to ascertain program impact for high school graduation of EL&S

participants. This program graduation data were compared to similar students at risk of educational failure, providing a valid comparison for program staff and district administration to gain an understanding of the EL&S success in supporting district graduation goals. Additionally, the results of this summative program evaluation could be the impetus to conduct a formative process evaluation to determine adjustments or changes need to support higher rates of high school graduation.

Using the logic model, the resources, or inputs the local district provided, were important considerations of the development of the EL&S program. According to the logic model, the inputs are part of the planned work, which is coupled with program processes or philosophies to provide the foundational work for which the outputs and outcomes logically flow (Kellogg, 2004). The program evaluation began with a review of these two foundational program components (inputs and processes) and are the first two topics presented in the literature review.

I began with a chart highlighting the four components to describe the logic model of the EL&S program evaluation. Figure 2 illustrates the relationship of the Inputs, Processes, Outputs, and Outcomes in relation to the EL&S program evaluation. Each of these components served as part of the logic that leads to the desired output—EL&S participant graduation.

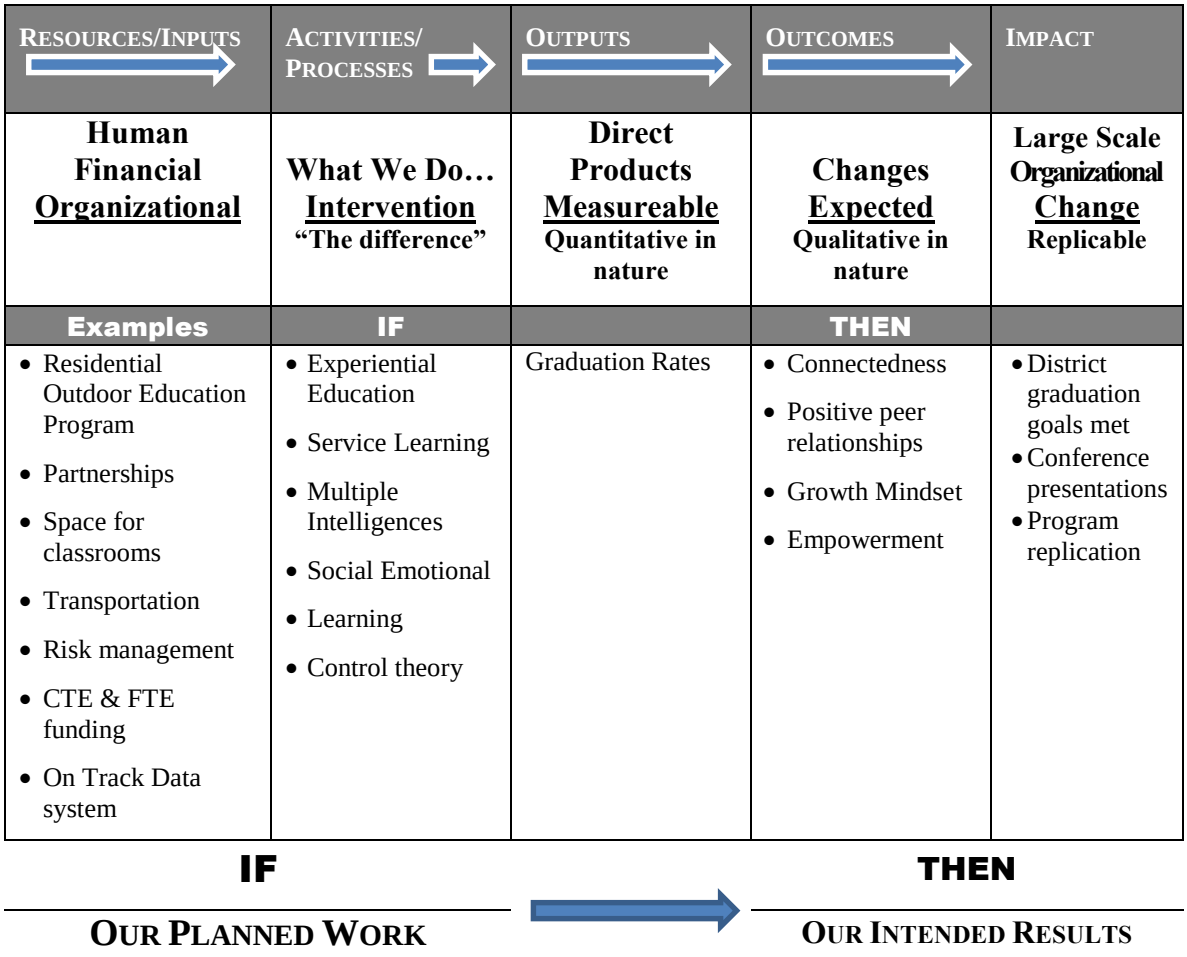


Figure 2. The EL&S program framework using the logic model, illustrating the program components and intended results.

Inputs in the EL&S Logic Model

ROEE program history. Without a residential outdoor environmental education center (ROEE) the local district would not have the unique and necessary resource for the EL&S program creation. The history of program components and rationale for the EL&S

program are germane to an understanding of specific program philosophies and how the program inception lead to the program evaluated in this paper. I have included the historical understanding of the EL&S as a valuable input for understanding the EL&S.

The northwestern local school district has operated the ROEE since the 1930s and owned the ROEE since 1957 (XLSD, 2013). The ROEE hosts several classrooms from various elementary schools, blending students from different backgrounds for a weeklong living-learning experience in a residential camp setting studying the diversity of people and nature. Staff members recruit, train, and select high school students to serve as cabin leaders and teacher assistants. These student leaders, excused from their classes for a week, attend the ROEE to support teachers in the environmental field studies and lead the elementary students in community building within the cabin groups.

EL&S program history. The successes of the ROEE program use of high school students for a weeklong leadership experience lead to the idea for an extended high school leadership program. In 1998, a grant proposal was submitted to design a semester-long environmental leadership and service program for students in the district to have a project-based, interdisciplinary, relationship-centered, small learning community with the theme of environmental leadership and service. These students would serve as student leaders for the ROEE and obtain academic credit. Upon receiving funding for the EL&S, staff was hired and collaboration began with the local high schools. The fall of 2001 welcomed the first cohort of students. The EL&S is designed as a recuperative program for students identified as at-risk for educational failure—those for whom a more active curriculum, a smaller supportive learning community, alternative learning

structure, and a change of peer group would be beneficial (Faircloth & Hamm, 2011; Johnson, 2009; O'Brien, Albert, Chein, & Steinberg, 2011). The EL&S program handbook defines attributes of the program in this manner:

> Students and staff work to build a learning community and environment that is supportive yet challenging both in the classroom and the field. This program is interdisciplinary with skills and information being presented for multiple intelligences with the emphasis on hands-on instruction. In addition, value is placed in the concept of community" and providing a positive peer group (Waskowitz, 2011, p.2).

The ability to provide an authentic leadership experience has been a hallmark of the EL&S. Comments from sixth-grade teachers illustrate the power of this relationship: "I think being a leader actually saved a few kids, one in particular. I know she would not have been in school if she had not had the [EL&S] opportunity." Another teacher describes the power of the EL&S experience to guide career choices:

> I have had several students return as high school leaders. I think seeing those students return shows the impact Waskowitz has had. I recently had a visit from a former student who went to [X] high School. She told my current class that she never even liked science until she had me as a teacher and went to camp! She is now attending NYU! (Teacher, personal communication, May, 2011)

The ROEE is the *input* that serves as the cornerstone for the foundation of the EL&S program.

Additional *inputs* for the EL&S program included the development of a CTE (career and technical education) approach with enhanced student funding and curricular frameworks rich in relevant activities tied to careers (Gordon, 2008). Partnerships with county and state natural resource and youth work training departments emerged and provided resources for program development. In 2010, the local district also began an early warning system to identify students to track all high school students to determine if they are on-track to graduate high school. This on-track tool has been helpful in identifying students appropriate for inclusion in the EL&S program. These inputs or resources are part of the EL&S program foundation.

EL&S historical data as input. The EL&S used two metrics of participant growth: attendance and Perry's Measure of Intellectual Development (MID) (Perry, 1981; Moore, 1990; 2011). These historical program measures were thought to be appropriate markers of program success and accepted by the program's planning grant. The MID and attendance provided a foundation for program planning and served as an input that served to frame the work. However, it was not used in a summative or formative evaluative capacity. It served as a requirement of the funding agency for justification (Alkin, 2013; Alkin. Vo, & Christie, 2012).

Measure of Intellectual Development (MID). The MID was developed by Perry in 1970 for use in college classes to determine the stage of intellectual development of college freshman (Knefelkamp, 2003; Moore, 1990; Perry, 1981). Experiential education programs utilized the tool to determine the effects of their program on adolescents' intellectual developmental after participating in a specific program (Collins, Paisley,

Sibthorp, & Gookin, 2011; Sheard & Golby, 2006). The MID is an evaluation of pre and post program essay scored by trained scorers (evaluators utilizing a standardized rubric for which validity and reliability is established). It assesses participants' essays according to the Perry scale, which identifies four stages of cognitive development. The four stages are dualism, multiplicity, relativism, and commitment (Eriksen & McAuliffe, 2006; Moore, 1990; 2011). The report received from the evaluators in 2012 provided the following narrative of analysis:

> What's there mostly, with a few exceptions, seems to be extensive descriptions of the various activities in the [EL&S] experience plus an effort to "parrot" back the key messages/lessons without much in the way of ownership and reflective analysis. That approach broadly suggests Perry positions 2 and 3 (leaning toward 3), which is generally consistent with … the pre essays, but beyond that broad sense and the occasional structural indicators (e.g., listing, examples, absolutes), there aren't enough consistent Perry scheme cues to generate formal ratings. (Moore, personal communication, 2012).

The use of the Perry scale provided EL&S faculty with student's voice. Student's voice is not the intended use of the MID. Analysis of the scored data did not provide evidence of student intellectual development and is addressed in the following quote. The evaluator continues the narrative analysis with a thematic approach to understanding the data and continues.

> As an alternative I've tried to capture the key messages/themes that the students cited within their essays; my general sense is the experience certainly has some significant influences on students' skill-building in some areas (like leadership and teamwork) as well as their perceptions of affective issues (and likely emotional intelligence), but it's impossible to say whether there was any impact on intellectual development. (Moore, personal communication, 2012).

With this understanding of the limitation of use, the MID is no longer used as a metric for program evaluation. However, the feedback received and student voice is a resource for future planning and program reflection.

Attendance. Also used as an indicator of success for the EL&S program are attendance records. While attendance records were kept for each semester there was no comparison data used or available to determine individual attendance improvement or for comparison to a high school student body attendance. The funding agency and district staff was pleased with the attendance report; therefore, data were collected and recorded as presented in Figure 3. A data set is missing for spring 2005 as the program laptop was stolen.

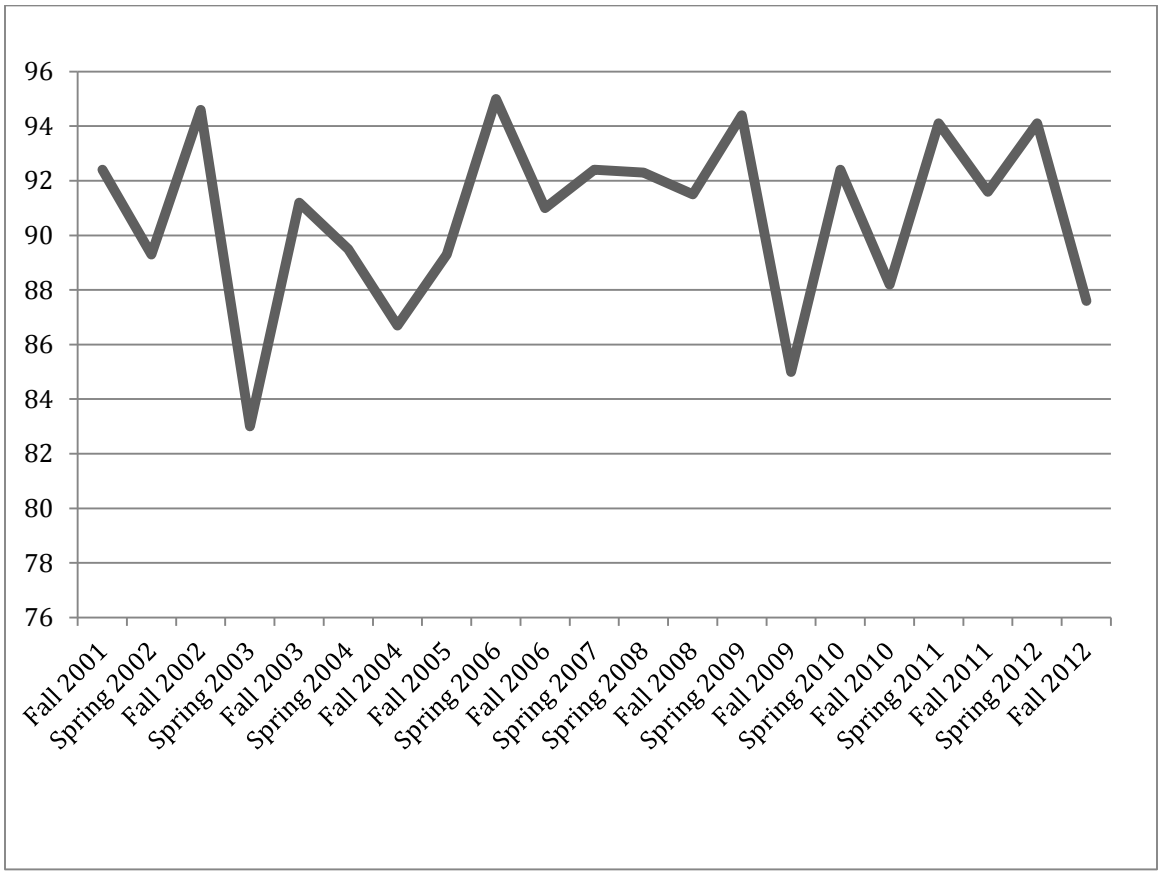


Figure 3. 2001-2012 program attendance by EL&S cohort.

Attendance is presented as a percentage of the aggregate totals for each EL&S cohort for the first 10 years of the program. Spring 2003 was the lowest attendance at 83% and fall 2002 had the highest rate of attendance at 94.6%. The average cohort size was 20 students; therefore, a single student with poor attendance could lower the average. Attendance has been used as an indicator of measure of connectedness (Allensworth & Easton, 2007). The program collected attendance records and anecdotal discussions with high school personnel might indicate improved connectedness; however, the connection has not been measured empirically.

The inputs are the foundational components both historically and as a system of supports provided by the local district. Furthermore, inputs are the infrastructure for the program inception and evolution to the programs current iteration.

Processes in the EL&S Logic Model

The pedagogical and conceptual theories that frame the EL&S curriculum and instructional strategies for supporting high school graduation for at-risk students are the processes the student participants engage in as part of the theory of change for the EL&S logic model. These processes include the educational theories of Dewey's experiential education, Gardner's multiple intelligences, Glasser's control theory, and Goleman's theory of emotional intelligence. The literature reviewed in this section described the processes**,** which serve as the philosophies that guided program practices. Each of these theories has best practices aligned with the philosophies. The practices presented are used to promote student engagement toward the program goal of high school graduation.

Experiential education. Dewey (1997 [1938]) posited that an education connects the learner to the world through experiences. Dewey was part of the progressive movement and believed in the link between democracy in education and social justice (Warren, 2005). Positive social change continues to be a key criterion for all educative experiences described in earlier educational reform efforts and continues today with reform-minded educators. Dewey discussed the educative value of experience with the teacher as a facilitator of the experience. Students construct knowledge through authentic experiences in the community. Kolb (1984) further developed the idea of experiential learning cycle. See Figure 4.

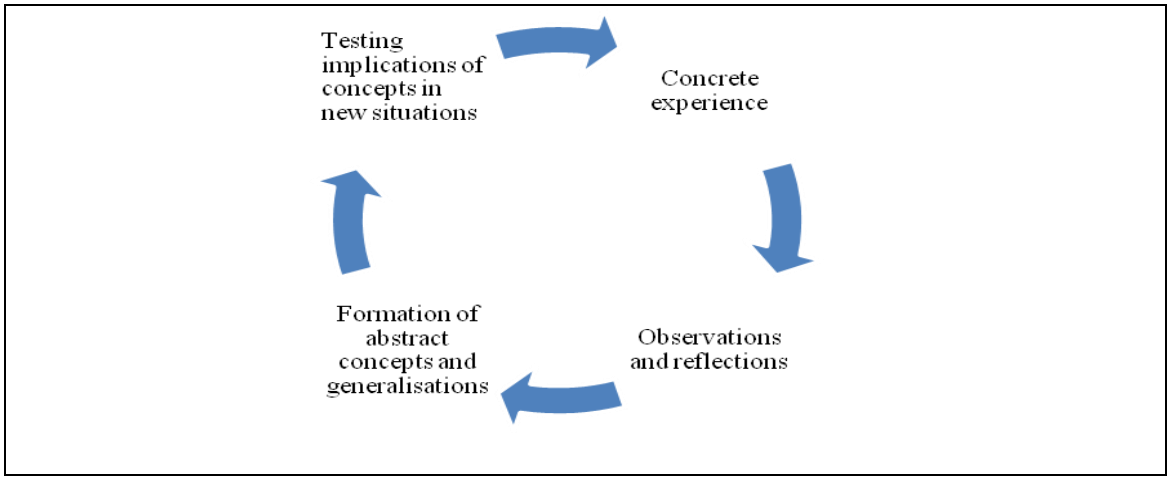


Figure 4. An example of Kolb's experiential learning model. Adapted from Ord, J., & Leather, M. (2011). The substance beneath the labels of experiential learning: The importance of John Dewey for outdoor educators. *Australian Journal Of Outdoor Education, 15*(2), 13-23.

Ord and Leather (2011) called for a return to experiential education theory as the heart of education for greater understanding of the world and society around us. Learning outside of the classroom walls engenders a deeper learning experience (Frauman, 2010; Smith, Steel, & Gidlow, 2010). Warren (2005) asserted the experiential learning theory of Dewey also supports social justice in the classrooms and educational systems. Both are important attributes and goals of 21st century learning experiences (Partnership for the 21st Century Skills, 2010). An effective teacher will frame these experiences to become educative. The larger community also serves as a classroom. The practices of service-learning and adventure education (challenge and initiative team activities) are examples of educative experiences frequently used in experiential classrooms today (Dyson, 2011; Gavin & Parker, 2011; Richards et al., 2013). Dewey (1997 [1938]) stated the learner derives meaning through dynamic interactions with the

learning environment and experience. Programs, which provide multicomponent curriculum (i.e. service learning, adventure and social- emotional education), incorporating experiences both in and out of the classroom better, support and sustain student educational success (Durlak et al., 2011). Social emotional learning is core to the principles and goals of outdoor and experiential education (Sibthorp, 2010). Positive youth development is an essential role outdoor experiential education embraces to support the social skills needed to navigate in society today (Sheard & Golby, 2006; Sibthorp, 2010; Sibthorp & Arthur-Banning, 2004). These practices are found within the EL&S pedagogy and curriculum. Grounded in experiential educational theory are values supportive of Freirean philosophy and all students learning and reaching their potential (Beames & Atencio, 2008; Breunig, 2005; Roberts, 2007). Additionally, the humanizing/empowering elements of this philosophy are integrated with the EL&S mission and intended outcomes manifest in both the affective and academic domains.

Multiple intelligences. Best practices for student learning include differentiated instruction (Hains & Smith, 2012). Gardner's (2011) seminal research of multiple intelligences identifies various learning styles in which students learn best. Conversely, differentiated instructional practices can support all students learning by designing lesson that teach to the strengths of the learner's intelligence. Gardner theorizes each learner has different ways of knowing. Gardner further posited these multiple intelligences as linguistic, musical, logical-mathematical, spatial, bodily kinesthetic, and interpersonal or social. Principals and teachers support the claim that students at risk of educational can thrive in a learning environment rich in multiple strategies for learners facilitating

academic growth (Bridgeland et al., 2009). Chiarello (2013) identified effective instruction for discipline problem students. Chiarello discussion included student-centered instruction with less emphasis on direct instruction and more active approach such as kinesthetic or musical for student engagement, an experiential approach.

Experiential educators (Warren et al., 2008) resonate with Gardner's multiple intelligence theory. Active learning situations incorporate the various modalities of intelligences (Kolb & Kolb, 2005). Students at-risk of educational failure need validation of their unique backgrounds, learning culture, and experiences for cultural pluralism to occur in educational systems (Warren, 2005). The theory of multiple intelligences acknowledges the differentiation of learning styles and promotes a student-centered approach to learning as found in experiential educational programs and the EL&S (Gardner, 1993; 2011; Warren et al., 2008).

Social-emotional learning (SEL). School climate research illustrates the importance of positive social relationships within the school and classroom (Allodi, 2010a; 2010b; Jones, Jones, & Vermette, 2009). In Goleman seminal work, *Working with Emotional Intelligence* (1995), he posited that an emotional intelligence (EQ) is needed for a person to effectively use IQ. SEL developed from the premise that students' cognition is enhanced with interpersonal and intrapersonal skills as described in both Glasser's Control Theory and Goleman's EQ. Both Glasser's and Coleman's work provides an educational foundation to guide program practice in support of student academic success and high school graduation. I will describe both educational theories in the following sections.

Control theory. Glasser's seminal works with reality therapy (1965) and control theory (1986) provided a framework for student-centered schooling. The success of reality therapy and control theory lies in the importance of relationships within the school and the classrooms. These relationships between student and student and student and teacher are the basis of SEL skills and a positive school climate (Allodi, 2010a; 2010b; Zins & Elias, 2006). Similar to experiential education and multiple intelligence theory, Glasser highlights the importance of empowering students to make choices for their learning and styles of learning (Dyson, 2010; Hindes et al. 2008; Uroff & Greene, 1991). Proponents of control theory emphasized positive classroom behavior and supportive teacher and student relationships resulting in academic attainment (Major & Anderson, 1987). Glasser's quality schools supported student empowerment for a personal commitment to their learning and emotions supportive of useful learning, and Glasser described this as a students "quality world" (WGI, 2010). In control theory, students are taught they are in control of their feeling and thoughts envisioning themselves as *high school achievers* vs. *high school dropouts* could lead to their enacting behaviors that propel them toward high school graduation.

Emotional intelligence. Goleman (1995) asserted the importance of emotional intelligence versus IQ. Students that have social-emotional skills are better equipped to navigate various social situations, understand themselves and others, and tend to have a positive outlook on their future. Goleman's EQ theory lead to the creation of the Collaboration for Academic, Social, and Emotional Learning (CASEL) which has

provided curriculum and support for several state boards of education and a bill introduce in congress to adopt and mandate SEL curriculum (CASEL, 2013).

A meta-analysis of social-emotional learning by Durlak et al. (2011) reviewed 213 school-based programs and concluded that students enrolled in SEL programs saw 11% gain in achievement. Both SEL and experiential learning curricular practices are critical components of a successful EL&S program (Sheard & Golby, 2006; Sibthorp, 2010; Sibthorp & Arthur-Banning, 2004).

Educational pedagogy and practice provide a platform for students at risk of educational failure by addressing the missing motivation for these students to continue their education and obtain a high school diploma. McNulty and Quaglia (2007) posited rigor, relevance, and relationships within high school programming provides a nurturing and relevant educational experience, which inspires students to complete high school prepared for the 21st century. The EL&S was created on these educational frameworks and describe the processes of within the logic model evaluation (XLSD, 2013b). The next discussion describes the expected outcomes of connectedness, positive peer culture, and growth mindset and the educational literature to support the logic for the EL&S theory of change.

Outcomes of the EL&S Logic Model

The literature on dropout research, disenfranchised and marginalized youth provided compelling evidence on multiple variables (dependent) or logic model outcomes that address increasing high school graduation– the output for all students within the logic model evaluation framework for the EL&S. These topics offered insights into the

problem of student academic attainment and the various concerns students at risk of academic failure face. Studies revealed when intentionally planning to educate the whole student; both with rigor for academics and social-emotional competencies students achieve (Allodi, 2010a; Yazzie-Mintz, 2010). Educating the whole child requires a focus beyond academic achievement to embrace and offer meaning of the personal and social aspect of learning (Bird & Sultman, 2010). These outcomes are integral in the planning process as the intended results of a well planned and executed EL&S that is steeped in educational literature.

EL&S Program Outcomes

The following sections described outcomes the local district educators have credited to the EL&S program. These are researched practices, which have not been assessed by program staff. These outcomes would be an important additional source of data for a formative EL&S program evaluation in the future. These design outcomes are an important aspect of the program and provide the necessary information for a holistic understanding of the EL&S.

Connectedness

Connectedness describes a student's feeling of belonging and trust in the safety of the group to support their growth (learning) and uniqueness. The commitment to show up and participate defines connectedness (CDC, 2010). Student's positive perceptions of their connection to school have an encouraging effect on their ability to graduate on time, experience success in their studies and demonstrate an affinity towards their community and personal empowerment. Understanding factors that contribute to school

connectedness can support a school plan for improving the learning environment (Allodi, 2010a; 2010b; CDC, 2010; Fryden, Care, Freeman, & Chan, 2009; Karcher & Sass, 2010). The EL&S uses the connectedness research in developing activities and program systems.

The CDC (2010) has identified school connectedness as a protective factor for adolescence health and ability to succeed in school. Studies have identified the school environment as a factor in encouraging students to stay in school and complete their degree (or earning diploma) (Bendro & Mitchell, 2010; CDC, 2010; Frydenberg et al., 2009; Karcher & Sass, 2010;). Fryden et al. (2009) described the major factors that connect students to school and support emotional well-being and success in school. These factors included the ability to cope with the variety of stressors faced by adolescents and a sense of wellbeing. Brendtro and Mitchell (2010) further discussed the need for positive peers and adults that contribute to the sense of wellbeing and resiliency. The broad characteristics of school connectedness include positive relationships with peers and adults, emotional well-being, a culture of student and academic engagement, and a feeling of belonging (Bendro and Mitchell, 2010; CDC, 2010; Fryden et al., 2009; Karcher and Sass, 2010).

Ladwig (2011) posited that academic outcomes while easy to measure are not as critical as the nonacademic outcomes of schooling. It is the nonacademic outcomes of democratic principles, healthy living, ability to get along with others and social ethics including tolerance and service to others as the written and often unwritten goals of education in North America. The connection between the school connectedness

outcomes and the nonacademic outcomes (SEL) overlap in description. A student and schools success depends on the ability to address the nonacademic outcomes as a contributor, as well as academic achievement outcomes. Students not engaged or connected to their school are usually off track academically for graduation (Allensworth & Easton, 2005; 2007; Balfanz et al., 2010, CDC, 2010;).

The EL&S developed rubrics for student engagement and track attendance as an informal measure of connectedness. The rubrics include community service, afterschool clubs, and peer mentoring. The rubric serves as a record of involvement in both school-related and community activities. The EL&S theory of practice advocates community involvement and connectedness as a support for academic achievement.

Adolescent Peer Culture

The importance of a positive peer culture for adolescence is epitomized by the familiar parental refrain of "if your friends were to jump off a bridge, would you?" Psychology researchers reveal the answer is probably *yes* (Sparks, 2013). The motivation for peer approval is a sense of belonging or connectedness to a group (Faircloth & Hamm, 2011; Johnson, 2009; O'Brien et al., 2011). Tate and Copas (2010) stated peer groups are a "remarkably powerful phenomenon" that is neither inherently good nor bad (p.12). Peer pressure can be viewed as positive when is supports positive societal outcomes and negatively when it encourages dangerous, risky behavior (Sparks, 2013). O'Brien et al. (2011) and Tate and Copas (2010) posited that adolescents take more risks in the presence of their peers. O'Brien et al., (2011) found adolescents predominately choose immediate rewards instead of delayed gratification. Persevering on homework or

a difficult math problem for a good grade in the course is viewed as difficult if your friends are at the beach.

Youth who are not connected to a healthy adult at school look for peer approval and a sense of belonging elsewhere (Bentro & Mitchell, 2010). Teacher awareness of the nuances of relationships can support the creation of class affiliation and engagement toward student achievement (Faircloth & Hamm, 2011). Tate and Copas (2010) identified four developmental stages that people forming groups go through. These groups are similar to adventure education (AE) stages of group development. The stages of group development include:

1. Casing, acquaintance and goal ambiguity, aligns with the forming stage of AE,
2. Limit testing is defined as searching for the position, the norming stage of AE,
3. Polarization of Values, growth and group problem-solving, this is called the storming stage in AE, and
4. Positive peer culture greater group strength and in AE it is called the performing stage. (Tate & Copas, 2010)

Working through these stages allows students to become independent and self- sufficient learners responsible for their learning facilitated by a teacher who is willing to let the group process unfold (Kolb & Kolb, 2005).

Connectedness research and adolescent peer culture research have implications for recuperative program student motivation towards educational achievement.

Developing a process for an intact student group to develop and become responsible for their own learning and the success of the student group is one tenet of EL&S.

Student Empowerment and Metacognition

Dweck (2009) stated students of the 21st century must be equipped with a growth mindset. Students need to be acknowledged for their effort, strategy of thinking, persistence in a task, and concentration to promote resilience, and deep thinking skills (Bernardo, 2012; Dweck, 2009). Davis, Allison, Burnette, and Stone (2011) also promoted the benefits of a "can do" attitude and self-efficacy for academic success. Students empowered are responsible for their learning and believe hard work will result in success support incremental theory (Davis et al., 2011; Dweck, 2009; Jackson, 2011). Incremental theorists are in contrast to entity theorists that believe intelligence and ability are fixed traits. This dichotomy between the entity and incremental theory is presented in implicit theories of intelligence (Davis et al., 2011; Dweck, 2009). Implicit theories of intelligence are a theory of metacognition, understanding how we learn and think (Blackwell, Trzesniewski, & Dweck, 2007; Wilson & Bai, 2010).

Zinn (2008) stated that fun is an overlooked element of successful and engaging lessons, an intrinsic motivator especially for at risk students. Zinn (2008) continued by identifying six elements of fun in learning. The six elements include

- Choice: options, freedom possibility to study something I care about.
- Relevance: meaningful, application to my life, connected, purposeful
- Engagement: immersed fully in the moment, time was not important
- Active learning: projects, learning in the community, service, real work

- Teacher attitude: caring, welcoming, friendly, interested in me
- Camaraderie: team; safe, feeling of belonging, community of learners

The six elements share a common theme of empowerment of the learner. Glasser (1998, as quoted in Zinn, 2008) identifies fun, as one of the basic human needs and often overlooked aspect of school.

Empowerment through experiential education programs has been defined as both a process and outcome (Shellman, 2014; Shellman & Ewert, 2010). Recent studies have empirically supported the power of experiential education methodology in developing individual student growth in changes in perspectives in three ways: (a) intrapersonal, (b) interpersonal, and (c) behavioral (Shellman & Ewert, 2010). Students felt they had control over their lives; they could make the difference. Empowerment is also a key attribute of the growth mindset (Dweck, 2009).

Students who embrace and receive encouragement with their learning are motivated for the intellectual hard work required to succeed (Jackson, 2011). Developing a theory of change for EL&S programs and classrooms that facilitate and connect students to relevant and authentic learning are poised for supporting and delivering student academic success

Outputs of the EL&S Logic Model

The outputs the data of graduation rates for the EL&S were promising. The EL&S program supported the on time graduation with a success rate of 68.3% of it previous students graduating on time and extended rate of 89.1%. Moreover, when participant data were compared to similar at risk students through an ANCOVA, student

participants in the EL&S program had higher graduation rates, both on time and extended than non-participants. The mean difference between the independent variables demonstrated the success of the EL&S program in determining the high school graduation rate of participants and the comparison group. Regardless of the number of classes failed as a freshman the EL&S does support students for educational attainment of high school graduation.

Implementation

Program evaluation using the logic model provided a venue that described the EL&S program in detail, organized by a flow chart. Using the logic model the EL&S program philosophies, activities, resources (inputs) and outcomes (outputs) are shared in a graphic representation, which helps describe the program logic in a methodical manner. While education literature can support program philosophies and provide insight into best-educational practices, knowing the program accomplishes its intended outcomes through empirical data is a powerful justification (Frye & Hemmer, 2012; Knowlton & Phillips, 2013).

A white paper and presentation (see Appendix A & B) to the local school board of directors and administration is part of the implementation. Understanding district programs and how they work to support district goals for graduation is an important oversight function of the district administration for accountability. Program managers have a responsibility to develop curriculum to advance district goals and implement the vision or as the local district describes the *promise* for student achievement and student graduation (XLSD, 2014).

Potential Resources and Existing Supports

This project, the evaluation of the EL&S addressed the need of the local school district to ascertain the effect of the program in support of high school graduation for all students, especially students identified at risk of dropping out of school (McNeill, 2007). This project study program evaluation has illustrated the need for formative assessment of the EL&S as well as clear indicators of a summative nature. Knowing graduation occurs for disenfranchised or off-track students is crucial and is the goal of K-12 compulsory education. However, perhaps having benchmarks for identification of student performance would help support more students to graduate with a catalog of available recuperative programs.

Potential Barriers

The project evaluation of the EL&S required obtaining data sets from various database sources. The archived data were not easily obtained or obtainable and therefore limited the full potential in determining the effect of participation in the EL&S. Students that transferred out of the local school district also presented a challenge. The question of whether they were dropouts or graduates was difficult to distinguish. A better system to track EL&S students through Internet databases might help alleviate this situation. Gaining permission to track a student after they complete the EL&S program might mitigate this concern.

Proposal for Implementation and Timetable

A comprehensive evaluation should begin at the planning stage of the program. With a pause to evaluate the EL&S program with the use of the logic model, a new cycle

of program evaluation can begin. Knowing the extent to which the EL&S has supported graduation for EL&S students provides a baseline for new goals and benchmarks. The EL&S has a starting point and a clear picture of what the program has accomplished and can move forward with formative assessment for understanding of how each program input and resource effects identified benchmarks for the future. For example, what inputs and resources are needed to support 100% graduation for all EL&S participants? The logic model framework provided a framework demonstrating the connections of philosophy and pedagogy to graduation rate statistics.

A presentation to the local district administration and school board of directors has been scheduled with the completion of this project. Sharing the evaluation brought awareness of program success and has the ability to garner support and consideration in future budgetary and program decisions. The presentation included the findings summarized in a white paper (see Appendix A).

Program staff also reviewed the project evaluation white paper summary. Recommendation were elicited from program staff at the start of the new school year. This review was used to set goals and benchmarks for accountability and evaluation to ascertain program quality and assurance toward meeting agreed upon goals.

Roles and Responsibilities of Student and Others

The roles identified in this project evaluation included the support from staff in the local district accountability and testing department as assigned by the director. The local district staff in the accountability and testing department retrieved data and reviewed the statistics for reliability and validity. The assistant director of accountability

and assessment also provided a sounding board as I worked through the data collection. The use of archival data permitted a limited role for others and, therefore, was confined to myself and district assessment and accountability staff.

Project Evaluation

My project was a program evaluation for a local school districts EL&S program. I choose to reflect on the evaluation process and success of the program evaluation by reviewing the standards for quality evaluation as discussed by the CDC (MacDonald et al., 2001). As discussed earlier, the CDC (MacDonald et al., 2001) sponsored report on the evaluation defined these standards as follows: Utility asks the question is the study pertinent to the organization. The feasibility standard asks if the evaluation activities are minimally disruptive, and realistic. Propriety standard reviews the ethical treatment of people and integrity of the evaluation. Finally, accuracy asks if the evaluation will produce valid and reliable data for sharing and decision-making.

During the process of gathering data, support from the district personnel was scheduled; therefore, gathering data were minimally disruptive. Working closely with both instructional administration and assessment and evaluation administration to ensure data retrieved was valid, and the information garnered would be of use to district administration for planning purposes support a thoughtful and accurate evaluation process.

Implications Including Social Change

Social Change

Knowing the EL&S program is a viable and effective program to help identified off-track students to graduate is a powerful reassurance for families and students that have experienced multiple roadblocks and failure within the school system. The importance of knowing the impact of the EL&S creates and supports the continuation of funding and possible rationale for expansion of the EL&S for students that need /qualify for a unique learning opportunity to support them in attaining a high school diploma. Through the use of the logic model for program evaluation, the local district has a document that incorporates many of the best practices based on current educational research. The program evaluation has organized and systematized program resources, and theory aligned with outcomes and outputs. With this process organized in the visual presentation of the logic model framework, other districts and programs may replicate the processes for similar outcomes.

EL&S is an example of an innovative experiential educational program that has produced results for participants. Breunig (2005b) highlighted despite experiential education programs early roots in the progressive movement of the late 1800's and early 1900's; the practice is still considered innovative and new. Social change is one of the intended aims of experiential programs designed to empower students to reflect, learn, and apply new knowledge for social equity and betterment (Breunig, 2005b; Warren et al., 2008). The EL&S can be a model to integrate the experiential philosophy into significant classroom practice for other school district to replicate.

Local Community

Additionally, parents, counselors, and students within the local district have the justification that participating in the EL&S program supported the on time graduation with a success rate of 69% of it previous students graduating on time and extended rate of 89%. Furthermore, the EL&S program did help students at risk of educational failure as demonstrated through the statistical analysis of ANCOVA. The comparison group had a higher rate of dropping out while the EL&S students were able to connect to their school and retrieve enough credits to graduate at a higher percentage that the local districts student body. The district's goal of nine out of ten students graduating on time is empirically supported by the EL&S. The local district has a proven program in its arsenal for supporting disengaged-disenfranchised students.

Far-Reaching

Experiential programs, both in informal educational and formal educational programming can look at ways of replicating or adapting similar philosophies and resources to engage disenfranchised learners and create innovative programs and pathways for educational attainment. School districts with low graduation rates might look for opportunities to create authentic learning experiences that provide meaningful leadership and service learning to engage disenfranchised youth. While few school districts own ROEE facilities, an inventory of partnerships and possibilities for meaningful experiences similar to a ROEE may support positive results for their students as well through the educational methodologies described in the input and processes section previously. The inventory may reveal opportunities for authentic leadership

experiences and service learning possibilities. Examples for service learning and leadership might include a nature center, early childhood center, or assisted living program.

Conclusion

In this project study, the data indicated students were supported to graduate through participation in the EL&S program. Through an ANCOVA statistical test participants also had a graduation rate better that similar at risk students that did not participate in the EL&S. Another equally important aspect of the project study was the researched philosophies of the program components as illustrated in the logic model framework. The logic model framework provided an organizational tool that depicted the logic of best practices leading to student engagement and ultimately high school graduation. Staying abreast of trends and practices in the dropout prevention, experiential and adventure education fields could support additional methods and practices for higher high school graduation rates with the EL&S and other educational programming for dropout prevention.

Section 4: Reflections and Conclusions

Introduction

This capstone project is the culmination of my academic doctoral journey and a critical review of a professional project that I created, nurtured, and developed. It grew from my belief as a practitioner in the power of an EL&S for student achievement. In this section, I provided a reflection and review of both journeys as a scholar and practitioner. This doctoral project is the story where these paths intersect.

Project Strengths

The EL&S program evaluation conducted for this study clearly articulated and demonstrated that the program has an actual positive impact on graduation rate, meaning that it is successful at accomplishing its purpose. The EL&S is a viable and effective program that successfully supports disenfranchised and off-track students to high school graduation compared to similar off-track students. The narrow yet impactful outputs derived from the project provide a clear picture of the program's effectiveness and show areas for additional impact and growth. The next step in improving this process is to create intermediate goals that will help scaffold success for all students. Aspects of the EL&S provide a model for how to successfully engage high school students and improve graduation rates. The program design also provides opportunities for EL&S students to engage in leadership and service learning experiences – both experiences that are transferable to the participants' future workplaces.

The project provided me with an opportunity to clarify program assumptions and delve into the research of the practices and philosophies, which were part of the planning

foundation. The inception of the program was built from my own personal, educational experiences, not from a researched, *best practices* approach. Through the work of this project, the EL&S that I studied now has a curriculum map and program philosophies. These foundational pieces can serve as evidence of a thoughtful approach for replication and expansion with granting agencies and other funding sources for additional resources.

Recommendations for Remediation of Limitations

The project's limitations were not being able to obtain a full data set for all EL&S participants since the program began in 2001. Data were obtainable for the past five years, however, which provided an adequate sample size. To improve this, the EL&S program needs to develop a data collection procedure. I recommend data on EL&S program participants be housed internally within an EL&S program data warehouse versus reliance on archival data from the local district databases. An intentional collection of participant data each year should result in an accurate picture of student academic successes beyond graduation attainment.

Scholarship

I grew as a scholar-practitioner through this project. I learned discernment, patience, and that language is an important tool for communication. The specific rules for communicating a researched practice support greater understanding that is trusted, reliable, and valid for colleagues, parents, and students. Standing on the shoulders of philosophers, theorist, and academics has broadened my respect for educational research. I gained a deeper respect and understanding of *best practices.* In meetings when the question is asked, "what does the research say," I now embrace the discussion, knowing

that time can be saved through the understanding of the research, allowing students to receive the quality education they deserve.

Project Development and Evaluation

I learned I was a novice program developer in 1998 when I received funds to design the EL&S. The EL&S program while funded included only attendance and credit recuperation assessment. This approach was a narrow and restrictive measurement for assessing academic achievement. Credit recuperation was defined by a student earning 3.5 credits per semester instead of the typical three credits per semester at the EL&S program inception. Educational accountability changed over the years of the program, as did the formulas for computing graduation rates due to NCLB. The EL&S program attendance data were collected and shared with funders, but were not presented in comparison to a particular student previous attendance. Student transition and follow-up was not considered and therefore the full impact of the program was not realized.

The program design was curricular and pedagogical, providing students with an authentic, project-based, experiential educational experience for re-engagement in learning. Unfortunately, without well-defined benchmarks, internal program evaluation was only based on curriculum and experiential pedagogy, not outcomes. Alkin (2013) described this phenomenon as a typical characteristic of early program evaluation. Literature in the adventure and experiential education programming also highlighted the lack of rigorous program evaluation of experiential programs prior to the late 1990's (Hattie et al., 1997). The onset of NCLB legislation of 2002 began accountability with empirical data for school improvement and measuring student achievement.

Using a logic model for the EL&S now combines a review of the inputs and processes that flow to the expected outputs and outcomes. An awareness of the logic model in 1998 would have provided the framework to guide the planning process for the EL&S. Benchmarks would have been created providing clarity of purpose to guide program practices over the years.

Leadership and Change

Communication is a critical attribute for educational leaders to articulate change for societal betterment. Being a change agent requires the ability to share the story of a problem or challenge in a compelling and accurate manner to gain support from multiple stakeholders for success. Leadership also means listening. A good educational leader must listen to the families, the students, the paraprofessionals, the teachers the community, and colleagues to gain a deep understanding of the problems they face and the desired outcomes. Obtaining multiple data points are critical for educational leaders to embrace and fully understand the problems, the inequities, and the challenges of education. These data points are from all stakeholders, their beliefs, understandings—their stories, as well as the empirical data. A successful leader needs to embrace all data points to determine a course of action that will allow all students to experience educational attainment.

Leadership for change also requires curiosity and the ability to think how to improve programs. My curiosity as a leader for social change through the EL&S program empowered me to continue a dialogue with the many stakeholders, albeit as critical voices for improvement. A different approach that I would take is to create an

advisory group to inform and guide program practices and develop essential program partners. The critical evaluation components were originally an afterthought in program design and implementation. I now know that the outcomes of the EL&S should guide the work. I have learned program planning is cyclical, adjusting, monitoring, and readjusting. Accountability is as important as implementation in program design.

The leadership skills in designing a program evaluation are crucial for accountability of educational programs for student achievement. I would approach program design and implementation differently by clearly articulating the goals or desired results of a program during the planning stage. The evaluation of the EL&S would have been stronger if specific data points were collected throughout the program years. Waiting 13 years to collect graduation data resulted in missing data sets for the first years of program participants.

Analysis of Self as Scholar

Scholarship is important to me. I learned I enjoy searching for educational literature and reading for a deep understanding of the essence and implication of studies. I am a novice in developing statistical tests; however, I learned to use statistical evidence to enhance, support, or reject arguments. Scholarship is why I undertook my doctoral journey. The scholarship added research skills to my experience that support credibility as an educator and more importantly as a member of a small subgroup of educators that work in the field of residential outdoor environmental education. The doctoral journey enhanced my work as a scholar-practitioner in this small, yet powerful career field of education.

Analysis of Self as Practitioner

Data support student growth. Data support quality programming and continuous improvement. I provide my students a road map to understand themselves as scholars and contributing community members; I must practice this exercise. With my advanced understanding of curriculum development, program creation, and assessment and evaluation, it is incumbent on me to develop a plan to support others and contribute to a better society. Continuing membership in various professional organizations, as well as increasing my involvement through presentations and workshop facilitation is an additional way to support others and myself in the field of education. These secondary and, perhaps equally important, project goals are presenting the program components and its successes at professional conferences, poster sessions, or program sharing workshops. Through these opportunities, I hope other school districts may replicate the program success for their disengaged students.

I learned much about patience, thoroughness, different perspectives, and the importance of leadership for learning. Asking for and receiving feedback is an important part of effective leadership. Collaboration and brainstorming is a part of my operating system. However, I have also learned sometimes it is wise to first review the work of researchers and other educators, enabling the creative process to begin without working through problems and roadblocks unforeseen at the time of planning. I consult and share articles more freely. I will continue to read and expand my worldview through peer-reviewed journals. I am more thoughtful in my practice than prior to my doctoral journey.

Analysis of Self as Project Developer

I enjoyed the research and design of the project. I have a profound appreciation for statisticians and statistics. A quality project requires a team. Asking questions strengthens the work; and critical friends can provide perspective, which strengthens the project and the work of and for educators. Data collection should be an integral component of every program from the start. I learned that beginning a project with the end in mind would create a thoughtful path to meet this goal. This clarity of vision was not missing when, in 1998, I envisioned the EL&S program; the means to verify that the program met the goal of reengaging students in their learning to support graduation was not included. The logic model as a framework for program and project development is a welcome tool in my arsenal as an educational leader looking to create meaningful pathways for student success.

The Project's Potential Impact on Social Change

Making a difference for students who have suffered multiple indicators of educational failure was the impetus for the creation of the EL&S. Knowing the EL&S has made a difference for 90% of the participating students is gratifying. Parr and Richardson (2006) best describe another implication: students not completing high school are at risk of not being economically engaged in society. The workforce requires a level of skill and knowledge; the high school diploma is one important benchmark for an engaged and likely successful future. The theory of change that was the inception of the program is validated; and, therefore, parents, students, and district personnel know the EL&S supports high school graduation and the opportunities the diploma provides.

Another potential impact of the project aside from the students that have realized an important personal and societal goal is the implication for replication and dissemination at professional meetings. Program philosophies and activities may be incorporated into freshman high school curriculums that engage and connect students to the material thus reducing the failure rate. Workshops and studio classrooms could demonstrate the pedagogy of experiential, adventure, and service learning education. Sharing the results of the EL&S program success with teachers across the local district might inspire program development at individual school sites as well, helping educators to think *outside* the classroom to support student success.

Implications, Applications, and Directions for Future Research

This study focused on a narrow interpretation of educational attainment—high school graduation. First, understanding the program met its intended goals or outputs, frees program staff to develop an approach to understanding why. The nuances of why a program succeeds might be reviewed and examined through a qualitative approach. Designing a student or family survey to ascertain the extent in which the program reinforces social-emotional growth in support of academic success as an additional program aspect to study.

Mackenzie, Son, and Hollenhorst (2014) suggested experiential and adventure educators would be wise to examine the connections and emerging psychological research to explain the *why*: the theories behind the many successes of experiential education programs. For replication to be successful, a solid development of theory and frameworks should be explored. This type of exploration lends itself to grounded

research study (Creswell, 2012; Lodico et al., 2010). With a grounded research study, multiple data and data points collected over years of programming might result in a practical theory that could be used to generalize the EL&S approach to other settings (Creswell, 2012; Lodico et al., 2010). While experiential, adventure, and service learning education programs are not new, mainstream high school educators have not embraced these methods. Perhaps with continued collection of data and dissemination other schools can incorporate the power of the EL&S in part or as a whole program.

Conclusion

As the findings of this project study indicated, a comprehensive EL&S can support a pathway to high school graduation for students. The logic model framework provided a visual template—to organize the various inputs, resources that lead to the outcomes and outputs of the EL&S program. The program justification follows a logical path of *if—then*, demonstrating and providing researched justification of the success of an EL&S in support of high school graduation.

The process of envisioning, developing, implementing, and reflecting on this evaluation project study has helped me to hone my skills and confidence as a scholar-practitioner. I look forward to enhancing and further developing my skills in support of quality educational experience for all children that they may find themselves as scholars, leaders, and contributing to their community betterment. Margaret Mead (as cited in Sommers & Dineen, 1984) once said, "The world will become a better place when a small group of concerned citizens standup and works for all people. Indeed it is the only thing that has worked" (p.158). I intend to continue to find methods to support academic

success for all students with as many or as few educators that will join with me. The students deserve my best effort.

References

Alkin, M. C. (Ed.) (2013) *Evaluation Roots: A Wider Perspective of Theorists' Views and Influences* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Alkin, M. C., Vo, A. T., & Christie, C. A. (2012). The evaluator's role in valuing: Who and with whom. *New Directions for Evaluation, 133,* 29-41. doi:10.1002/ev.20004

Allensworth, E., & Easton, J. (2005). The on-track indicator as a predictor of high school graduation. *Chicago: Consortium on Chicago School Research*. Retrieved from http://inpathways.net/ontrack_indicator.pdf

Allensworth, E. M., & Easton, J. Q. (2007). *What matters for staying on-track and graduating in Chicago Public High Schools: A close look at course grades, failures, and attendance in the freshman year.* Chicago, IL: University of Chicago, Consortium on Chicago School Research. . Retrieved from http://ccsr.uchicago.edu/publications/07%20What%20Matters%20Final.pdf

Allodi, M. W. (2010a). Goals and values in school: A model developed for describing, evaluating and changing the social climate of learning environments. *Social Psychology of Education, 13*(2), 207-235. doi:10.1007/s11218-009-9110-6

Allodi, M. W. (2010b). The meaning of social climate of learning environments: Some reasons why we do not care enough about it. *Learning Environments Research, 13,* 89–104. doi:10.1007/s10984-010-9072-9

Balfanz, R. (2009). Can the American high school become an avenue of advancement for all? *Future of Children, 19*(1) 17-36. doi:10.1353/foc.0.0025

Balfanz, R., & Byrnes, V. (2012) *The importance of staying in school: A report on absenteeism in the nation's public schools.* Retrieved from http://new.every1graduates.org/the-importance-of-being-in-school/

Balfanz, R., Herzog, L., & MacIver, D. J. (2007) Preventing student disengagement and keeping students on the graduation path in urban middle-grade school: Early identification and effective interventions. *Educational Psychology*, *42*(4), 223-235. doi:10.1080/00461520701621079

Balfanz, R., Wang, A., & Byrnes, V. (2010) *Early warning indicator analysis: Tennessee.* Baltimore, MD: John Hopkins University Center for Social Organization of Schools. Retrieved from http://www.tn.gov/education/safe_schls/ dropout/ doc/EarlyWarningIndicatorAnalysisTN.pdf

Beames, S., & Atencio, M. (2008). Building social capital through outdoor education. *Journal of Adventure Education and Outdoor Learning*, *8*(2), 99-112. doi:10.1080/14729670802256868

Bendtro, L.K., Mitchell, M.L., (2010). The profound power of groups. *Reclaiming Children &Youth, 19*(3), 5-10. doi:10.1002/9780470373699

Bernardo, A. I. (2012). Talking about good and bad learners: Linguistic dimension of implicit theories of intelligence. *Electronic Journal Of Research In Educational Psychology*, *10*(1), 195-212. Retrieved from http://www.investigacion-psicopedagogica.org

Bill & Melinda Gates Foundation (Gates). (2010). *This school works for me: Creating choices to boost achievement*. Retrieved from http://www.gatesfoundation.org/united-states/Pages/school-works-for-me.aspx

Bird, K. A., & Sultmann, W. F. (2010). Social and emotional learning: Reporting a system approach to developing relationships, nurturing well-being and invigorating learning. *Educational & Child Psychology*, *27*(1), 143-155.

Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development, 78*(1), 246-263. doi:10.1111/j.1467-8624.2007.00995.x

Bowers, A. J., (2010). Grades and graduation: A longitudinal risk perspective to identify student dropouts. *The Journal of Educational Research, 103*,191-207. doi:10.1080/00220670903382970

Breunig, M. (2005a). Turning experiential education and critical pedagogy theory into praxis. *The Journal of Experiential Education, 28*(2), 106-122. doi: 10.1177/105382590903200306

Breunig, M. (2005b). *Experiential education and its potential as a vehicle for social change*. Retrieved from http://asstudents.unco.edu/students/AE-Extra/2005/4/Art-2.html

Bridgeland, J. M., Dilulio, J. J., Balfanz, R. (2009). *The high school dropout problem: Perspectives of teachers and principals*. Retrieved from eddigest.com at www.civicenterprises.net/pdfs/frontilines.pdf

Bucher, J. A. (2010). Using the logic model for planning and evaluation: Examples for new users. *Home Health Care Management & Practice*, *22*(5) 325-333. doi: 10.1171/1084822309353154

Center for Disease Control and Prevention, (CDC). (2010). School connectedness: Strategies for increasing protective factors among youth. *Reclaiming Children & Youth*, *19*(3), 21-24. Retrieved from http://reclaimingjournal.com/

Chen, H. T., & Rossi, P. H. (1980). The multi-goal, theory-driven approach to evaluation: A model linking basic and applied social science. *Social Forces*, *59*(1), 106-122.

Christie, C. A. & Alkin, M. C. (2008). Evaluation theory tree re-examined. Studies in Educational Evaluation 34, 131-135. Retrieved from http://dx.doi.org. ezp.waldenulibrary.org/10.1016/j.stueduc.2008.07.001

Coburn, C. E., & Talbert, J. E. (2006). Conceptions of evidence use in school districts: Mapping the terrain. *American Journal of Education*, *112*(4), 469-495. doi:10.1086/505056

Collaborative for Academic, Social, and Emotional Learning (CASEL) (2013). *Federal policy: Academic, social, and emotional learning Act of 2013.* Retrieved from http://casel.org/policy-advocacy/federal-policy/

Collins, R., Paisley, K., Sibthorp, J., & Gookin, J. (2011). Black-and-white thinkers and colorful problems: Intellectual differentiation in experiential education. *Journal of Experiential Education*, *33*(4), 416-420. doi.org/10.7768/1948-5123.1097

Coryn, C. L. S., Noakes, L. A., Westine, C. D., & Schroter, D. C. (2011). A systematic review of theory-driven evaluation practices from 1990 to 2009. *American Journal of Evaluation, 32*(2) 199-226. doi:10.1177/1098214010389321

Crippen, C. (2010). Serve, teach, and lead: It's all about relationships. *InSight: A Journal of Scholarly Teaching*, 527-36. Retrieved from http://insightjournal.net/

Davis, J., Burnette, J., Allison, S., & Stone, H. (2011). Against the odds: academic underdogs benefit from incremental theories. *Social Psychology Of Education*, *14*(3), 331-346. doi:10.1007/s11218-010-9147-6

Delahais, T., & Toulemonde, J. (2012). Applying contribution analysis: Lessons from five years of practice. *Evaluation 18*(3), 281-293. doi:10.1177/1356389012450810

Dewey, J. (1997). *Experience and Education.* New York, NY: Touchstone. (Original work published 1938).

Donaldson, S. I., & Lipsey, M. W. (2006). Roles for theory in contemporary evaluation practice: Developing practical knowledge. *The handbook of evaluation: Policies, programs, and practices*, 56-75. Retrieved from http://cgu.edu/PDFFiles/sbos /Roles%20for%20theory%20in%20contemporary.pdf

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The Impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 88*(1), 405-432. doi:10.1111/j.1467-8624.2010.01564.x

Dweck, C. S., (2009). Who will the 21st century learners be? *Knowledge Quest*, *38*(2), 8-9. Retrieved from http://www.ala.org/aasl/kq

Dyson, M. (2011). What might a person-centered model of teacher education look like in the 21st century? The transformism of teacher education. *Journal of Transformative Education 8*(1), 3-21. doi:10.1177/1541344611406949

Elksnin, L. K., & Elksnin, N. (2009). Getting children and youth to use social-emotional skills. *Counseling & Human Development*, *42*(4), 1-14. http://www.vssm.org/tor/counseling-and-human-development-journal/.

Eriksen, K. P., & McAuliffe, G. J. (2006). Constructive Development and Counselor Competence. *Counselor Education & Supervision*, *45*(3), 180-192. doi.org/10.1002/j.1556-6978.2006.tb00141.x

Evans, B. R. (2011). Content knowledge, attitudes, and self-efficacy in the mathematics New York City teaching fellows (NYCTF) program. *School Science & Mathematics*, *111*(5), 225-235. doi:10.1111/j.1949-8594.2011.00081.x

Faircloth, B. S., & Hamm, J. V. (2011). The dynamic reality of adolescent peer networks and sense of belonging. *Merrill-Palmer Quarterly*, *57*(1), 48-72. Retrieved from http://merrillpalmerquarterly.com/

Fleischer, L. (2010). Developing emotional literacy: Transition planning for youth at risk. *Reclaiming Children & Youth*, *19*(1), 50-53. Retrieved from http://reclaimingjournal.com/

Frauman, E. (2010). Incorporating the concept of mindfulness in informal outdoor education settings. *Journal of Experiential Education*, *33*(3), 225-238. doi:10.5193/JEE33.3.225

Frechtling, J. A. (2007). *Logic modeling methods in program evaluation.* San Francisco: Jossey-Bass.

Frydenberg, E., Care, E., Freeman, E., & Chan, E. (2009). Interrelationships between coping, school connectedness and wellbeing. *Australian Journal of Education*, 53(3), 261-276. Retrieved from http://www.acer.edu.au/press/aje

Frye, A. W., & Hemmer, P. A. (2012). Program evaluation models and related theories: AMEE Guide No. 67. *Medical Teacher, 34*(5), e288-e299. doi:10.3109/0142159X.2012.668637

Gardner, H. (2011). *Frames of mind: The theory of multiple intelligences* (3rd ed.). New York, NY: Basic Books.

Gardner, H. (1983). *Multiple intelligences: The theory in practice.* New York, NY: Basic Books.

Glover, J. (2013). A Conversation starter:-lifying outdoor adventure education as an innovative tool for the 21st Century. *Journal of Sustainability Education*, *5*. Retrieved from http://adventuremovementproject.org/wp-content/uploads/2013/04/Jeff-GloverAMP-PDF-ReadyMay7Version.pdf

Gordon, H. R. (2008). *The history and growth of career and technical education in America*. Long Grove, IL: Waveland Press, Inc.

Hains, B., & Smith, B. (2012). Student-centered course design: Empowering students to become self-directed learners. *Journal of Experiential Learning*, *35*(2), 357-374. Retrieved from http://www.aee.org/publications/jee

Hammond, C., Linton, D., Smink, J., & Drew, S. (2007). Dropout risk factors and exemplary programs: A technical report. *National Dropout Prevention Center/Network (NDPC/N)*. Retrieved from http://www.dropoutprevention.org/major-research-reports/dropout-risk-factors-exemplary-programs-technical-report

Hattie, J., Marsh, H. W., Neill, J. T., & Richards, G. E. (1997). Adventure education and outward bound: Out-of-class experiences that make a lasting difference. *Review of Educational Research*, *67*(1) 43-87. doi:10.3102/00346543067001043

Heberger, A. E., Christie, C. A., & Alkin, M. C. (2010). A bibliometric analysis of the academic influences of and on evaluation theorists' published works. *American Journal of Evaluation*, *31*(1) 24-44. doi: 10.1177/1098214009354120

Heckman, J. J. (2011). The economics of inequality. *American Educator*. Spring 31-47. Retrieved from http://actionforchildren.net/up_doc/heckman.pdf

H-local School District (XLSD). (2013a). *District data and information*. Retrieved from http://www.XXXlocalschools.org/AboutHighline/Pages/Home.aspx

H-local School District (XLSD). (2013b). *Waskowitz Outdoor School*. Retrieved from http://www.XXXlocalschools.org//site/Default.aspx?PageID=2151

Hindes, Y. L., Thorne, K. J., Schwean, V. L., & McKeough, A. M. (2008). Promoting intrapersonal qualities in adolescents: Evaluation of rapport's teen leadership

breakthrough program. *Canadian Journal of School Psychology*, *23*(2), 206-222. doi:10.1177/0829573508327307

hooks, b. (1994). *Teaching to transgress: Education as the practice of freedom.* New York, NY: Routledge

Hulton, L. J. (2007). An evaluation of a school-based teenage pregnancy prevention program using a logic model framework. *The Journal of School Nursing 23*(2), 104-110. doi:10.1177/10598405070230020801

Jackson, Y. (2011). *The pedagogy of confidence*. New York: Teacher's College Press

Jones, J. L., Jones, K. A., & Vermette, P. J. (2009). Using social and emotional learning to foster academic achievement in secondary mathematics. *American Secondary Education*, *37*(3), 4-9. doi:10.1093/teamat/hrp008

Karcher, M. J., & Sass, D. (2010). A multicultural assessment of adolescent connectedness: Testing measurement invariance across gender and ethnicity. *Journal of Counseling Psychology*, *57*(3), 274-289. doi:10.1037/a0019357

Kaufman, R., Guerra, I., & Platt, W. A. (2006) *Practical evaluation for educators*. Thousand Oaks, CA: Corwin Press

Knapp, C. E. (2010). The 2009 Kurt Hahn address: Seeking deeper understandings from experiences. *The Journal of Experiential Education, 33*(3), 274-287. doi:10.5193/jee33.3.274

Knefelkamp, L. L. (2003). The Influence of a Classic. *Liberal Education*, *89*(3), 10-15. Retrieved from Education Research Complete.

Knowlton, L.W. & Phillips, C.C. (2013). *The logic model guidebook: Better strategies for great results*. Thousand Oaks, CA: Sage.

Kolb, A.Y., & Kolb, D. A. (2005) Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education*, *4*(2), 193-212. doi:10.5465/AMLE.2005.17268566

Lagwig, J.G., (2010). Beyond academic outcomes. *Review of Research in Education*, *34*, 113- 141. doi;10.3102/0091732X09353062

Lantieri, L., & Nambiar, M. (2012). Cultivating the social, emotional, and inner lives of children and teachers. *Reclaiming Children & Youth, 21*(2), 27-33. Retrieved from http://reclaimingjournal.com/

Levin, H. M. (2009) The economic payoff to investing in educational justice. *Educational Researcher*, *38*(1), 5-20. doi:10.3102/0013189X08331192

Lipsey, M. W. (1993). Theory as method: Small theories of treatments. *New directions for program evaluation*, *57*, 5-38. doi:10.1002/ev.1637

MacDonald, G., Starr, G., Schooley, M., Yee, S. L., Klimowski, K., & Turner, K. (2001). *Introduction to program evaluation for comprehensive tobacco control programs*. Atlanta (GA): Centers for Disease Control and Prevention

MacIver, M. A., & MacIver, D. J. (2010). How do we ensure that everyone graduates? An integrated prevention and tiered intervention model for schools and districts. *New Directions for Youth Development, 127*: 25-35. doi:10.1002/yd.360

Mackenzie, S. H., Son, J., & Hollenhorst. S. (2014) Unifying psychology and experiential education: Toward an integrated understanding of *why* it works. *Journal of Experiential Education,* 37(1)*:* 75-88. doi:10.1177/1053825913518894

Major, R. L., & Anderson, D. J. (1987) Control theory in the classroom. *NASSP Bulletin 71,* 132. doi:10.1177/019263658707149620

Maxwell, B., & DesRoches, S. (2010). Empathy and social-emotional learning: Pitfalls and touchstones for school-based programs. *New Directions For Child & Adolescent Development, 2010*(129), 33-53. doi:10.1002/cd.274

McNamara, C. *Basic guide to outcomes based evaluation for non-profits with very limited resources.* Retrieved from http://managementhelp.org/evaluation/logic-model-guide.htm

McNeil, P. W. (2007). *Alternative education study*. Unpublished manuscript, XXX School District.

McNulty, R. J., & Quaglia, R. J. (2007). Rigor, relevance, and relationship. *The School Administrator, 8*(64), 1-7. Retrieved from http://www.aasa.org/SchoolAdministrator.aspx

Moore, W. S. (1990) *The measure of intellectual development (MID): An instrument manual.* Olympia, WA: Center for the Study of Intellectual Development.

Mudge, S., & Higgins, D. J. (2011). College access programming: Removing higher education barriers for underrepresented student populations. *The International Journal of Learning, 17*(11) 123-140. Retrieved from http://www.ijb.cgpublisher.com/product/pub.30/prod.3021

National Center for Educational Statistics (NCES). (2013). *Public school graduates and dropouts from the common core of data.* Retrieved from http://nces.ed.gov/pubs2013/2013309.pdf

No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, § 115, Stat. 1425 (2002).

Ord, J., & Leather, M. (2011). The Substance Beneath the Labels of Experiential Learning: The Importance of John Dewey for Outdoor Educators. *Australian Journal Of Outdoor Education*, *15*(2), 13-23. Retrieved from http://www.freepatentsonline.com/article/Australian-Journal-Outdoor-Education/282583217.html

Parr, M., & Richardson, W. J. (2006). Meeting the needs of students at risk. *International Journal of Learning 12*(10), 93-102. Retrieved from http://www.learning-journal.com

Partnership for 21st Century Skills (P21). (2010). *Overview: Framework for 21st century learning.* Retrieved from http://www.p21.org/index.php?option=com_content&task=view&id=504&Itemid=185#reports

Payne, D.A. (1994). *Designing educational project and program evaluations: A practical overview based on research and experience*. Boston: Kluwer Academic Publishers.

Perry, K. M. (2008). A reaction to and mental metaevaluation of the experimental learning evaluation project. *American Journal of Evaluation*, *29*: 352. doi: 10.1177/1098214008321686

Perry, W. G. Jr. (1998). *Forms of intellectual and ethical development in the college years: a scheme.* San Francisco: Jossey-Bass. (Originally published in 1970. New York: Holt, Rinehart & Winston.)

Popham, W. (2011). Assessment literacy overlooked: A teacher educator's confession. *Teacher Educator*, *46*(4), 265-273. doi:10.1080/08878730.2011.605048

Popham, W. J. (2010). *Everything school leaders need to know about assessment*. Thousand Oaks, CA: Corwin Press

Popham, W. (2007). Instructional insensitivity of tests: Accountability's dire drawback. *Phi Delta Kappan*, *89*(2), 146-155. Retrieved from http://pdkintl.org

Power, T. J. (2008). Editorial note: Promoting social justice. *School Psychology Review*, *37*(4), 451-452. Retrieved from http://www.journals.elsevier.com/journal-of-school-psychology/

Preskill, H., & Russ-Etf, D. (2005). *Building Evaluation Capacity: 72 Activities for Teaching and Training.* Thousand Oaks, CA: Sage Publications

Renger, R., & Titcomb, A. (2002). A three step approach to teaching logic models. *American Journal of Evaluation*, *23*(4) 493-503. doi:10.1177/1400202300409

Richards, M. H., Sanderson, R. C., Celio, C. I., Grant, J. E., Choi, I., George, C. C., & Deane, K. (2013). Service-learning in early adolescence: Results of a school-based curriculum. *Journal of Experiential Education*, *36*(1), 5-31. doi:10.1177/1053825913481580

Sheard, M. & Golby, J. (2006). The efficacy of an outdoor adventure education curriculum on selected aspects of positive psychological development. *Journal of Experiential Education, 29*(2) 187-209. doi: 10.1177/105382590602900208

Sibthorp, J. (2010). Positioning outdoor and adventure programs with positive youth development. *Journal of Experiential Education 33*(2) vi-ix. doi:10.5193/JEE33.2.vi

Sibthorp, J., & Arthur-Banning, S. (2004). Developing life effectiveness through adventure education: The roles of participant expectations, perceptions of empowerment, and learning relevance. *Journal of Experiential Education, 27*(1), 32-50. doi: 10.1177/105382590402700104

Smith, E. F., Steel, G., & Gidlow, B. (2010). The temporary community: Student experiences of school-based outdoor education programmes. *Journal of Experiential Education, 33*(2), 136-150. doi:10.5193/JEE33.2.136

Sommers, F. G., & Dineen, T. (1984). *Curing nuclear madness: A new-age prescription for personal action.* Toronto: Methuen.

Sparks, S. D. (2013). Students' social, emotional needs entwined with learning security. *Education Week, 32*(16), 16-21. Retrieved from http://www.edweek.org

Stewart, D. D., Law, M. M., Russell, D. D., & Hanna, S. S. (2004). Evaluating children's rehabilitation services: an application of a programme logic model. *Child: Care, Health & Development, 30*(5), 453-462. doi:10.1111/j.1365-2214.2004.00441.x

Stoiber, K. (2011). Translating knowledge of social-emotional learning and evidence-based practice into responsive school innovations. *Journal of Educational & Psychological Consultation*, *21*(1), 46-55. doi:10.1080/10474412.2011.549039

Stufflebeam, D. L. (2001). The metaevaluation imperative. *The American Journal of Evaluation*, *22*(2), 183-209. Retrieved from http://www.wmich.edu/evalphd/wp-content/uploads/2011/02/The_Metaevaluation_Imperative.pdf

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th Ed.) New York, NY: Harper Collins.

Tate, T. F., & Copas, R. L. (2010). "Peer pressure" and the group process: Building cultures of concern. *Reclaiming Children & Youth*, *19*(1), 12-16. Retrieved from http://reclaimingjournal.com/

Trochim, W. M. (2006). *The research methods knowledge base,* 2nd Ed. Retrieved from http://www.socialresearchmethods.net/kb/

Uroff, S., & Greene, B. (1991). A low-risk approach to high-risk students. *NASSP Bulletin 75,* 50-58. doi:10.1177/019263659107553809

U.S. Census Bureau. (2012). *Statistical Abstract of the United States: 2012*. Retrieved from http://www.census.gov/compendia/statab/2012/tables/12s0232.pdf

Warren, K., Mitten, D., & Loeffler, T.A. (Eds). (2008). *Theory and practice of experiential education.* Boulder, CO: Association of Experiential Education.

Washington State Office of the Superintendent of Public Instruction (OSPI). (2011). *Washington state environmental and sustainability literacy plan.* Retrieved from http://www.k12.wa.us/Environemntal Sustainability/default.aspx

Washington State Office of the Superintendent of Public Instruction (OSPI). (2014) *Washington State Report Card.* Retrieved from http://reportcard.ospi.k12.wa.us/summary.aspx?groupLevel=District&schoolId=104&reportLevel=District&orgLinkId=5335&yrs=&year=2010-11&printable=true

White House, Office of Social Innovation and Civic Participation. (July, 2010). *2010 national summer learning.* Retrieved from http://www.whitehouse.gov/blog/2010/07/08/2010-national-summer-learning

White, R. (2011). A sociocultural understanding of mediated learning, peer cooperation and emotional well-being. *Emotional & Behavioral Difficulties, 16*(1), 15-33. doi:10.1080/13632752.2011.545600

Whittemore, B. J. (2009). A framework for evaluating online programs. *Journal Of Instruction Delivery Systems, 23*(1), 22-27. Retrieved from http://www.salt.org/

William Glasser Institute (WGI) (2010). *Quality schools.* Retrieved from http://wglasser.com/the-glasser-approach/quality-schools

Wilson, N. S., & Bai, H. (2010). The relationships and impact of teachers' metacognitive knowledge and pedagogical understandings of metacognition. *Metacognition Learning, 5*, 269-288. doi:10.1007/s11409-010-9062-4

W. K. Kellogg Foundation (Kellogg). (2004) *Logic model development guide*. Retrieved from http://www.wkkf.org/knowledge-center/resources/2006/02/wk-kellogg-foundation-logic-model-development-guide.aspx

Worthen, B. (1990). Program evaluation. In H. Walberg & G. Haertel (Eds.), *The International Encyclopedia of Educational Evaluation*, (pp. 42-47). Toronto, ON: Pergammon Press.

Worthen, B. R., Sanders, J. R., & Fitzpatrick, J. L. (1997). *Program evaluation: Alternative approaches and practical guidelines*. New York: Longman.

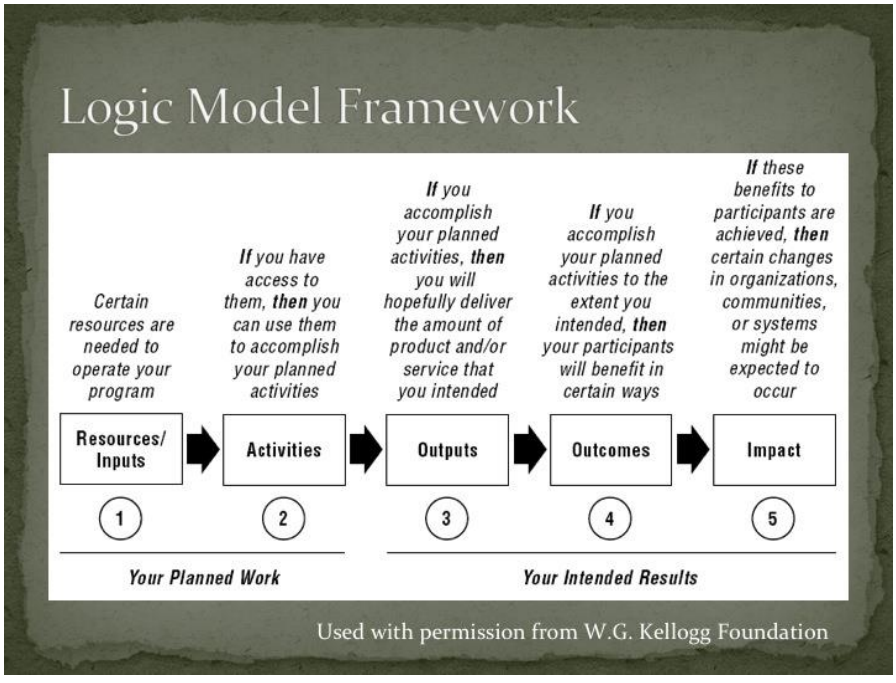
Yazzie-Mintz, E. (2010). *Charting the path from engagement to achievement: A report on the 2009 high school survey of student engagement.* Bloomington, IN: Center for Evaluation & Education Policy.

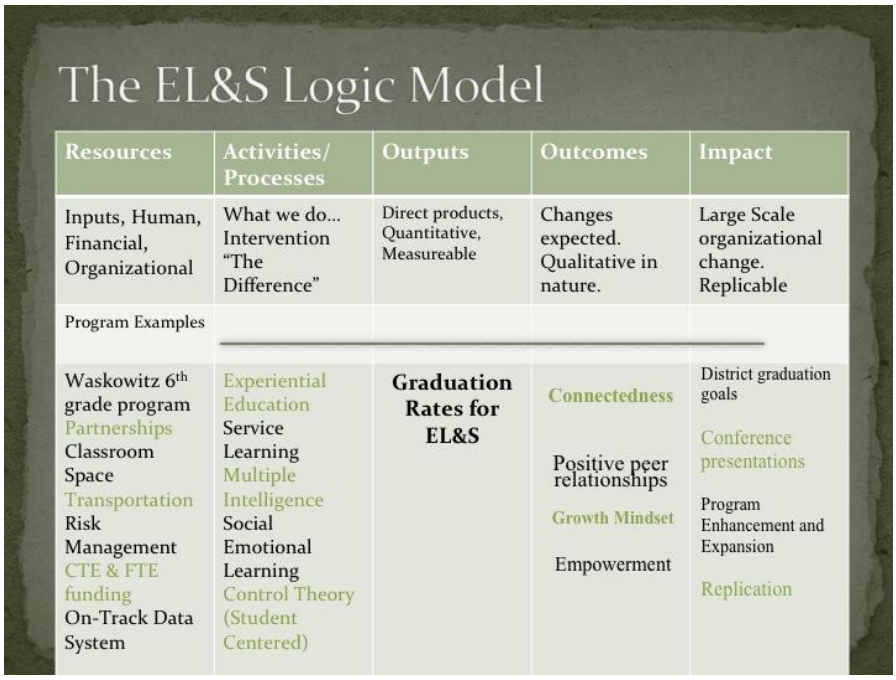
Zeeman, R. D. (2006). Glasser's choice theory and Purkey's invitational education - Allied approaches to counseling and schooling. *International Journal Of Reality Therapy*, *26*(1), 14-17. Retrieved from http://www.counseling.org/docs/david-kaplan%27s-files/zeeman.pdf?sfvrsn=2

Zinn, W. (2008). Making fun of school, or why does learning have to be such a drag?: Six key elements for motivating learning. *International Journal Of Learning*,, *15*(8), 153-160. Retrieved from http://ijl.cgpublisher.com/product/pub.30/prod.1874

Zins, J. E., & Elias, M. J. (2007). Social and emotional learning: Promoting the development of all students. *Journal Of Educational & Psychological Consultation*, *17*(2/3), 233-255. doi:10.1080/10474410701413152

Appendix A: PowerPoint Presentation

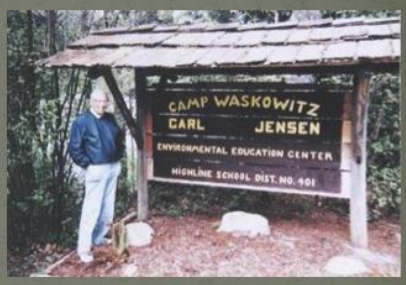



The EL&S Logic Model
Resources
Activities/ Processes
Outputs
Outcomes
Impact
Inputs, Human, Financial, Organizational
What we do... Intervention "The Difference"
Direct products, Quantitative, Measureable
Changes expected. Qualitative in nature.
Large Scale organizational change. Replicable
Program Examples
Waskowitz 6th grade program
Partnerships
Classroom Space
Transportation
Risk Management
CTE & FTE funding
On-Track Data System
Experiential Education
Service Learning
Multiple Intelligence
Social Emotional Learning
Control Theory (Student Centered)
Graduation Rates for EL&S
Connectedness
Positive peer relationships
Growth Mindset
Empowerment
District graduation goals
Conference presentations
Program Enhancement and Expansion
Replication


Where we've been
From 1947 to 2014

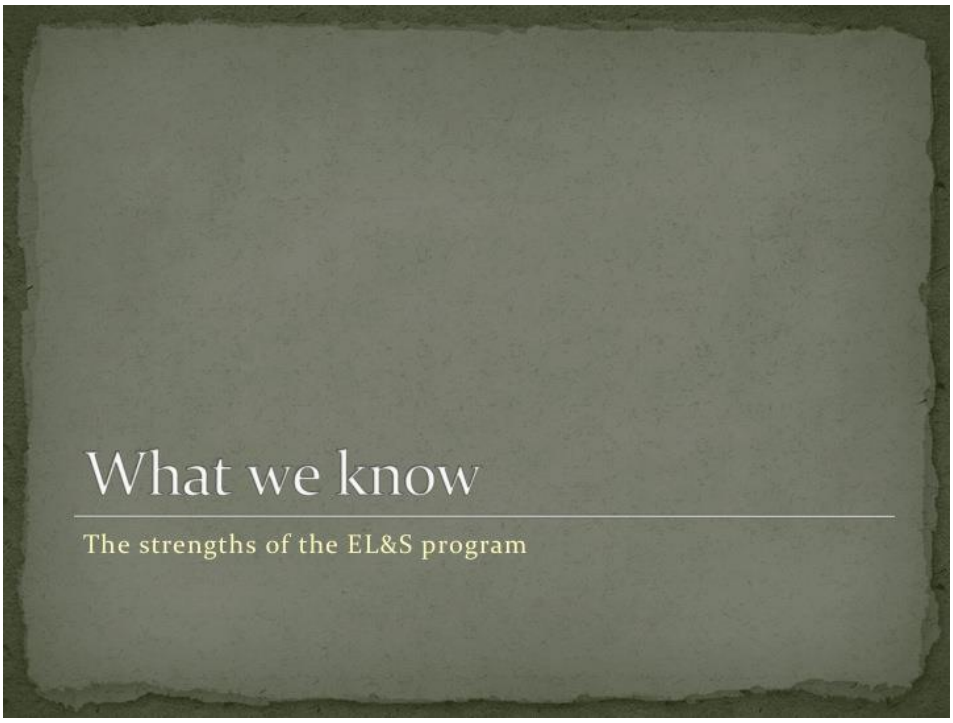
Our History

- 67 years in Local District
  - Founder
  - High School Leaders
  - One Week Leader
  - Leadership & Career Exploration
- WELS
  - 14 years
  - Semester Alternative-Recuperative/ Year Long

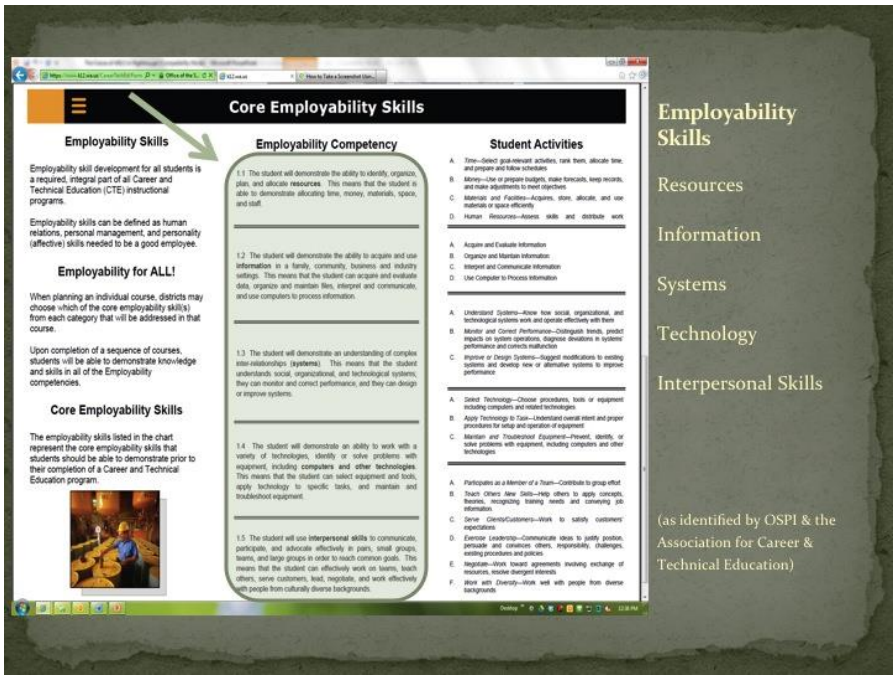


Our Current Status

- Success in motivating students to get re-engaged in their education and graduate -Attendance
- Success in building cognitive skills- MID
- Semester program inception 2001 with 12-20 students per cohort
- Yearlong EL&S program since 2012 with 25-50 students per cohort
- 2nd-year EL&S-PS partnership with Skill Center (2014) 22 students (accepted)


What we know
The strengths of the EL&S program


The WELS "Resources and Activities"
Academically "at risk" students (Off Track indicators)
Counselor recommended
Family request
Leadership Development/Service Learning
Active/ Minds-on curriculum/Experiential
Strong relationships/Student Centered
Metacognitive/Social Emotional Skills
CTE focus-Work experience / career exploration
Employability Skills
Theme-based, expeditionary design/Project Based


Core Employability Skills
Employability Skills
Employability skill development for all students is a required, integral part of all Career and Technical Education (CTE) instructional programs.
Employability skills can be defined as human relations, personal management, and personality (affective) skills needed to be a good employee.
Employability for ALL!
When planning an individual course, districts may choose which of the core employability skill(s) from each category that will be addressed in that course.
Upon completion of a sequence of courses, students will be able to demonstrate knowledge and skills in all of the Employability competencies.
Core Employability Skills
The employability skills listed in the chart represent the core employability skills that students should be able to demonstrate prior to their completion of a Career and Technical Education program.
Employability Competency
1.1 The student will demonstrate the ability to identify, organize, plan, and allocate resources. This means that the student is able to demonstrate allocating time, money, materials, space, and staff.
1.2 The student will demonstrate the ability to acquire and use information in a family, community, business and industry settings. This means that the student can acquire and evaluate data, organize and maintain files, interpret and communicate, and use computers to process information.
1.3 The student will demonstrate an understanding of complex inter-relationships (systems). This means that the student understands social, organizational, and technological systems; they can monitor and correct performance, and they can design or improve systems.
1.4 The student will demonstrate an ability to work with a variety of technologies, identify or solve problems with equipment, including computers and other technologies. This means that the student can select equipment and tools, apply technology to specific tasks, and maintain and troubleshoot equipment.
1.5 The student will use interpersonal skills to communicate, participate, and advocate effectively in pairs, small groups, teams, and large groups in order to reach common goals. This means that the student can effectively work on teams, teach others, serve customers, lead, negotiate, and work effectively with people from culturally diverse backgrounds.
Student Activities
A. Time—Select goal-relevant activities, rank them, allocate time, and prepare and follow schedules
B. Money—Use or prepare budgets, make forecasts, keep records, and make adjustments to meet objectives
C. Materials and Facilities—Acquires, store, allocate, and use materials or space efficiently
D. Human Resources—Assess skills and distribute work
A. Acquire and Evaluate Information
B. Organize and Maintain Information
C. Interpret and Communicate Information
D. Use Computer to Process Information
A. Understand Systems—Know how social, organizational, and technological systems work and operate effectively with them
B. Monitor and Correct Performance—Distinguish trends, predict impacts on system operations, diagnose deviations in systems' performance and correct s malfunction
C. Improve or Design Systems—Suggest modifications to existing systems and develop new or alternative systems to improve performance
A. Select Technology—Choose procedures, tools or equipment including computers and related technologies
B. Apply Technology to Task—Understand overall intent and proper procedures for setup and operation of equipment
C. Maintain and Troubleshoot Equipment—Prevent, identify, or solve problems with equipment, including computers and other technologies
A. Participates as a Member of a Team—Contribute to group effort
B. Teach Others New Skills—Help others to apply concepts, theories, recognizing training needs and conveying job information.
C. Serve Clients/Customers—Work to satisfy customers' expectations
D. Exercise Leadership—Communicate ideas to justify position, persuade and convince others, responsibly, challenges, existing procedures and policies
E. Negotiate—Work toward agreements involving exchange of resources, resolve divergent interests
F. Work with Diversity—Work well with people from diverse backgrounds
Employability Skills
Resources
Information
Systems
Technology
Interpersonal Skills
(as identified by OSPI & the Association for Career & Technical Education)


The Data
Where we are.

The Outputs

	On Time	Extended
State	77.2%	78.9%
HSD	65.5%	68.5%
WELS	68.3%	89.1%

Graduation rates are for 2012-13 School Year
All EL&S participants from 2008- 2013 are included (146) – after attrition of verified transferred students and the students in the class of 2015 graduation cohort- the sample size was 97 EL&S students.

ANCOVA- Statistics with control group

- 97 EL&S participants from 2008 to 2013 (97 of the students have failed at least 1 class as freshman)

Participants	Means of graduation status
EL&S	13.65
Non Participants	26.45

- Random selection of "like" students at risk of educational failure defined by failing at least 1 class as a freshman.
- Similar ethnicity, size of home school and gender.

A score of

10= On time

20= Extended

30= Dropout

The Outcomes

EL&S Parent/Student

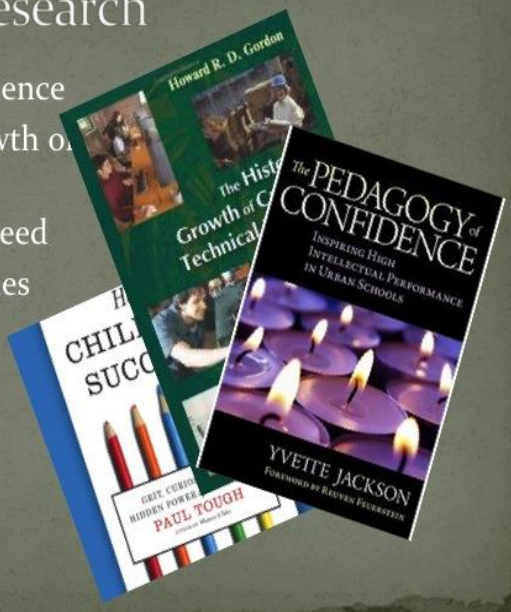
- "I have my son back! We talk at dinner on Friday, actual conversations about his week."
- "I use to complain about going to school.... With EL&S I wake up all excited and pumped to go to school."

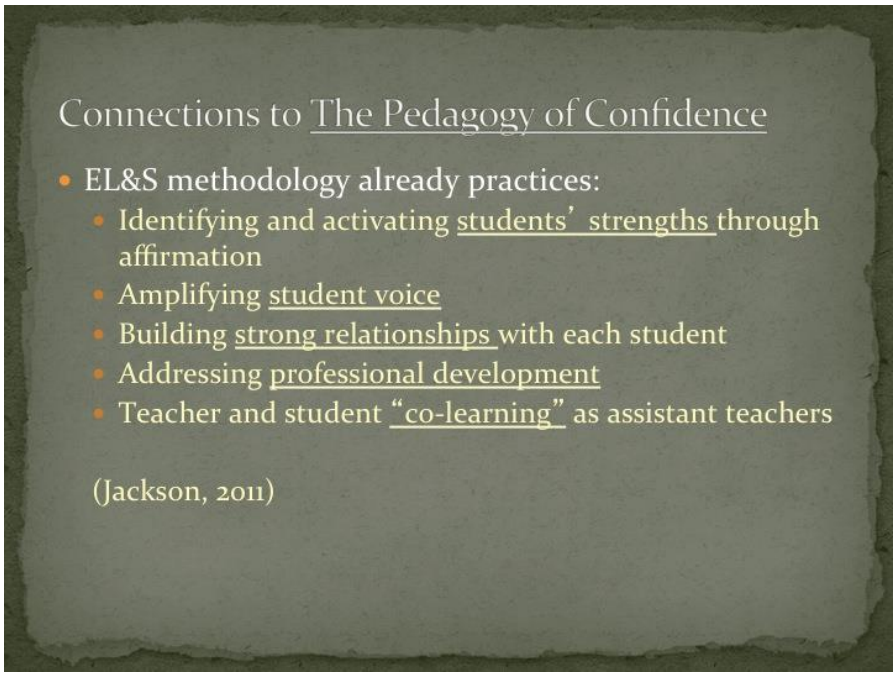
Sixth Grade Teachers

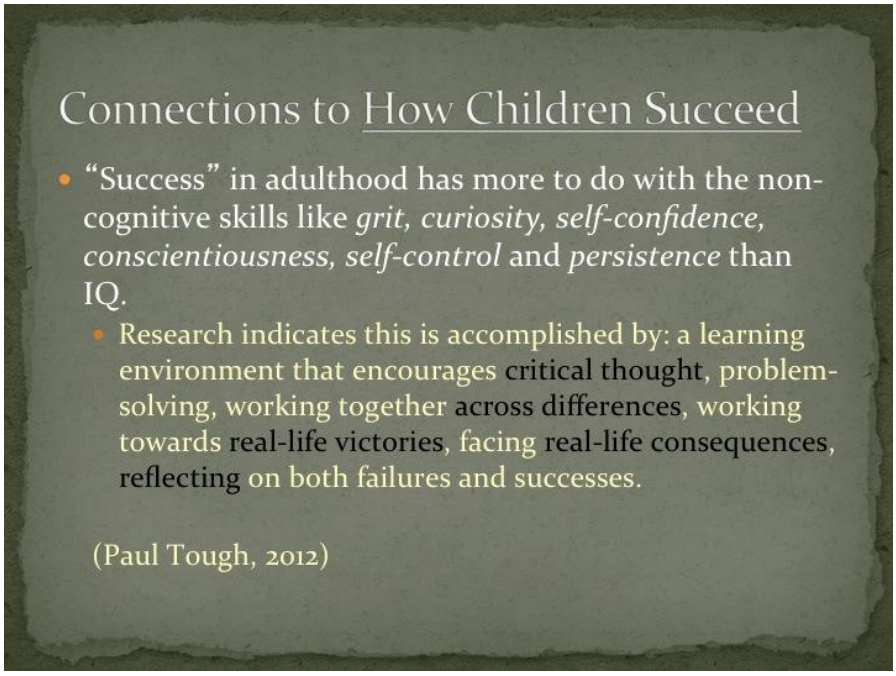
- "I think being a leader actually saved a few kids, one in particular. I know she would not have been in school if she had not had the [EL&S] opportunity."
- "I have had several students return as high school leaders. I think seeing those students return shows the impact [redacted] has had. I recently had a visit from a former student who went to [X] high School. She told my current class that she never even liked science until she had me as a teacher and went to camp! She is now attending NYU!"

Supporting Research

- Pedagogy of Confidence
- The History & Growth o CTE in America
- How Children Succeed
- Metacognitive Values
- 21st Century Skills




Connections to The Pedagogy of Confidence
EL&S methodology already practices:
Identifying and activating students' strengths through affirmation
Amplifying student voice
Building strong relationships with each student
Addressing professional development
Teacher and student "co-learning" as assistant teachers
(Jackson, 2011)


Connections to How Children Succeed
"Success" in adulthood has more to do with the non-cognitive skills like *grit, curiosity, self-confidence, conscientiousness, self-control* and *persistence* than IQ.
Research indicates this is accomplished by: a learning environment that encourages critical thought, problem-solving, working together across differences, working towards real-life victories, facing real-life consequences, reflecting on both failures and successes.
(Paul Tough, 2012)

Our Challenges

Delivering *IMPACT*

Engaging disenfranchised learners!

Growth?: What is *the right size*

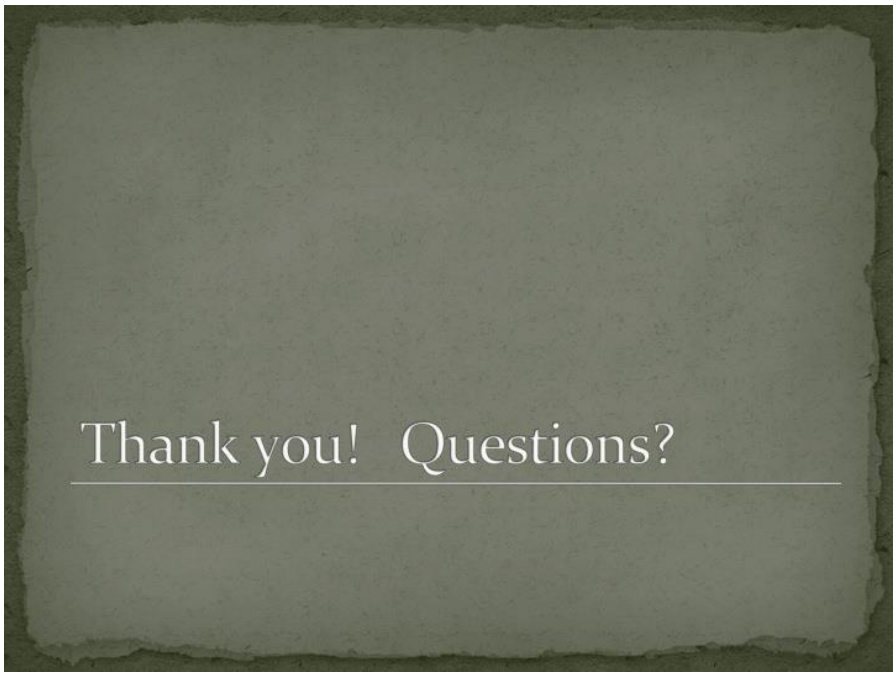
Staffing for Success

Transportation

Program Assessment

Studio Class

?????????



Works Cited

- Jackson, Y. (2011). *The Pedagogy of Confidence*. Teacher' s College Press: New York.
- Gordon, H. R. (2008). *The History and Growth of Career and Technical Education in America*. Waveland Press, Inc: Long Grove, IL.
- Tough, P. (2012). *How Children Succeed*. Houghton Mifflin Harcourt: New York.
- W. K. Kellogg Foundation (Kellogg). (2004) *Logic model development guide*. Retrieved from http://www.wkkf.org/knowledge-center/resources/2006/02/wk-kellogg-foundation-logic-model-development-guide.aspx

Appendix B: White Paper, Written & Presented by Roberta McFarland

Presented to the Local School District Administration
And Interested Educators
Environmental Leadership & Service Program
14 years of engaging students for success in school and life

Environmental Leadership & Service program (EL&S)—

Program Evaluation using the Logic Model Framework.

Background-Without a residential outdoor environmental education center (ROEE) the local school district would not have the unique and necessary resource for the EL&S program creation. The local school district has operated the ROEE since 1930's and owned since 1957. The ROEE hosts several classrooms from various elementary schools, blending students from various backgrounds for a weeklong living learning experience in a residential camp setting studying the diversity of people and nature. High school students are recruited, trained, and selected to serve as cabin leaders and teacher assistants. The selected high school students are excused from their classes for a week and attend the ROEE to support teachers with the environmental field studies and lead the elementary students in community building within the cabin groups.

In 1998, a grant proposal was submitted and awarded to design a semester long environmental leadership and service program for students in the district to have a project based, interdisciplinary, relationship centered, small learning community with a theme of environmental leadership and service. These students would serve as student leaders for the ROEE and obtain academic credit. Upon receiving funding for WELS, staff was hired and collaboration began with the local high schools. The fall of 2001 welcomed the first cohort of students. The EL&S was designed as a recuperative program for students identified as at-risk for educational failure—those for whom a more active curriculum, a smaller supportive learning community, an alternative learning structure, and a change of peer group would be beneficial. The EL&S program

handbook defines attributes of the program in this manner,

> "students and staff work to build a learning community and environment that is supportive yet challenging both in the classroom and in the field. This program is interdisciplinary with skills and information being presented for multiple intelligences with the emphasis on hands-on instruction. In addition, value is placed in the concept of community" and providing a positive peer group.

The ability to provide an authentic leadership experience has been a hallmark of the EL&S. Comments from sixth grade teachers illustrate the power of this relationship. "I think being a leader actually saved a few kids, one in particular. I know she would not have

been in school if she had not had the [WELS] opportunity." Another teacher describes the power of the EL&S experience to guide career choices,

> "I have had several students return as high school leaders. I think seeing those students return shows the impact EL&S has had. I recently had a visit from a former student who went to [X] high School. She told my current class that she never even liked science until she had me as a teacher and went to camp! She is now attending NYU!"

Logic Model Program Evaluation- ROEE is the *input* that serves as the cornerstone for the foundation of the EL&S program. The **table** on the next page illustrates the logic behind the EL&S program. Additional *inputs* for the EL&S program included the development of a CTE (career and technical education) approach with enhanced student funding and curricular frameworks. These frameworks are rich in relevant activities tied to environmental and education careers. Partnerships with county and state natural resource and youth work training departments emerged and provided additional resources for program development. In 2010 the local district also began an early warning system to identify students to track all high school students to determine if they are *on-track* to graduate high school. This on-track tool has been helpful in identifying students

appropriate for inclusion in the EL&S program. These inputs or resources are part of the EL&S program foundation. The next important foundational aspect is, the *processes,* of the EL&S the philosophies and best practices used for pedagogical and curricular development.

Logic Model –graphic organizer for EL&S

Resources/ Inputs	Activities/ Processes	Outputs	Outcomes	Impact
Human Financial Organizational	What we do… Intervention "The difference"	Direct Products Measureable Quantitative in nature	Changes expected Qualitative in nature	Large scale organizational change Replicable
Examples	***IF-***		***THEN***	
Residential Outdoor Education Program Partnerships Space for classrooms Transportation Risk management CTE & FTE funding On Track Data system	Experiential Education Service Learning Multiple Intelligences Social Emotional Learning Control theory	Graduation Rates	Connectedness Positive peer relationships Growth Mindset Empowerment	District graduation goals met Conference presentations Program replication

IF ***THEN***

Our Planned Work → Our Intended Results

The *processes* or curriculum is based on the education philosophies found with John Dewey's experiential educational theory, drawing upon real world experiences to derive meaning and educative opportunities. Attending to the social emotional learning of each student through the importance of community building and a student-centered or student-controlled approach is another hallmark of the program. Finally, the program is rich with active learning opportunities, reaching various learning modalities supporting the success of the individual not just the class.

How is EL&S doing in support of Local District Graduation Goals?

The *outcomes* & *outputs.*

If the resources (*inputs)* and activities (*processes)* are aligned—***Then*** we can expect these *outcomes* and *outputs.* The chart below illustrates the success the WELS program has had in support of district graduation goals. 68.3% have graduated on time, with the graduation rate improving to 89.1% when extended graduation is included.

	On Time	**Extended**
State*	77.2%	78.9%
HSD*	65.5%	68.5%
WELS	68.3%	89.1%

2008-2013 EL&S Graduation Rates
*2013

To further demonstrate the power of EL&S – I compared similar off track students graduation rates with EL&S graduation rates – from the same time frame. A statistical test (ANCOVA) was conducted to determine the relationship between graduation status and participation in the EL&S program. The district on track data tool was used to randomly select a similar group of students. The EL&S students were similar to the non-participating students. These students were identified by number of failed classes during their freshman year. Educational literature has found a failure on one class as a freshman decreases a students' chance of graduating high school. The following chart compares the mean of graduation status for the two groups. EL&S has higher graduation rates than similar at risk students attending the local school district.

Participants	Means of graduation status
EL&S	13.65
Similar Non Participants	26.45

Key
A score of:
10= On-time graduation
20= Extended graduation
30=Dropout of High School

Since 2001 both ROEE and EL&S programs have supported district goals of ensuring all students have a pathway for success, the EL&S pathway includes mountain trails, show shoes, leadership with 6th graders and support for one another as they develop the skills and attribute that will support them beyond their time at EL&S. Social change through education by knowing each student by *name, strength* and *need*—The Local School District's Promise *fulfilled.*

Curriculum Vitae

Roberta Harlow McFarland

Academic Preparation

Doctorate in Education, Curriculum, Instruction and Assessment
Walden University, Minneapolis, Minnesota 2014

Professional Certification Principal K-12
City University of Seattle, Bellevue, Washington 2004

Professional Certificate Educational Administration and Supervision
Sam Houston State University, Huntsville, Texas 1997

Master of Science in Elementary Education
Stephen F. Austin State University, Nacogdoches, Texas 1983

Teacher Practicum
Colorado Outward Bound School, Marble, Colorado 1982

Bachelor of Science, Cum Laude: Community, Leadership and Development/Psychology
Minor: Sociology: Springfield College, Springfield, Massachusetts 1979

Educational Leadership and Teaching Experience

Director of Outdoor Education Programs,
A residential outdoor environmental education center with innovative programs for 4th grade through high school students. Our signature program is a five-day program for 5th/6th grade students. Responsibilities include all aspects of program and facility oversight for 372 acres and over 7,000 students and clients per year. Developed a full time semester project based leadership learning program to a full year schoo1 for high school students. 1997-Present.

Adjunct Professor:

- City University of Seattle, Graduate Instructor of Outdoor Education, EM586 and Nature Interpretation Series, EM591. 1997-2006.
- Stephen F. Austin State University, Nacogdoches, Texas. Graduate Instructor of Environmental and Humane Education. ELE ED 595 summers of 1994, 1995 and 1996.

Instructional Coordinator: Large Independent School District, Outdoor Education Center (OEC).
A residential Magnet School for Houston fifth-grade students. Responsibilities include all aspects of staff recruitment, development and supervision; Curriculum development and training

for 36 professional and paraprofessional staff. Management of instructional budget; development and implementation of research on affective gains for attending students. Duties also included all aspects of residential programming to insure the well being of center staff and over 5,000 students per year. 1992-1997

Director, Outdoor School Program: Joy Outdoor Education Center,. A private, non-profit outdoor education center serving southwestern Ohio. Responsibilities include all aspects of staff recruitment, development and supervision; all aspects of marketing, contracting and maintaining school client relationships; all aspects of program curriculum, including the supervision and long range planning of the organic working farm and high ropes course; program budget and financial management and all duties required for the general well being of students involved in a residential school program. 1990-1992

Teacher Specialist: Houston Independent School District, Outdoor Education Center; Trinity, Texas
Responsibilities include developing and leading in-services for the Center's staff; supervision, leadership and evaluation of the instructors and interns assigned to my instructional team; and developing and revising the OEC curriculum. Additional responsibilities included serving as site librarian and director of environmental plays. Fall 1982-1990

Consultant Experience

- Bellevue College, Advisor for Wilderness Certificate program
- University of Washington, Danforth Leadership Program- Environmental Education Module
- Islandwood, formerly Puget Sound Environmental Learning Center, Facility Design Team.
- Adventure Experiences in Adventure Course (high and low elements).
- Camp Management, Inc. in Adventure Course, canoeing, horseback riding, orienteering and field and aquatic biology.
- S.F.A. State University Programs in pioneer crafts and backpack trip in Ozark Mountains, Arkansas.
- Lamar ISD: Schoolyard activities.
- Texas Educational Service Center, Region VI. Two-day workshops on Outdoor Education in your school
- North Carolina Outward Bound: Developed science curriculum for New York City's Summer Scholarship session.
- Outdoor Experiential Consultants in Team Building workshops for corporate and school groups.

Honors and Grants

- Project Learning Tree- Green Schools Grant recipient 2010-2013.
- King County Work Training Program Grant, $15,000 in 2000, $21,000- 33,000 in 2001- 2013
- King County Cultural Education and Heritage Grant, $9,700 in 2002
- Stuart Foundation Development Grant for High School programs, $52,000 in 2001
- Water Works grant for water study, $3,545 in 2001
- National Gardening Foundation Grant Recipient, 1992

- Impact II Grant Recipient: Exxon and Houston Independent School District sponsored 1982
- Who's Who Among Students in American Universities and Colleges
- Kappa Delta Pi Honor Society: Inducted in May 1979
- Career Ladder Level III certification from the Texas Education Agency 1988

Professional Growth

Environmental Events Coordinator

⁎***The Great AmeriCAN Road Rally of 1981***. A 3,265-mile expedition across America powered by aluminum. Through the recycling of aluminum cans collected in route we were able to pay for our gas and increase pubic interest in conserving natural resources through recycling. January 1981.

⁎***Recycle the Bowl 1990***. Developed, organized, and hosted the first ever-joint environmental awareness campaign by the Houston and Galveston Catholic Diocese Schools and Houston I.S.D. The campaign involved over fifty schools and consisted of two parts: an essay contest on garbage and a weeklong recycling effort in the schools. The latter event collected over 23 tons of material. Awards presentations were made by members of the Houston City Council, members of the HISD superintendent's office and Browning-Ferris Industries.

Professional Presentations

- International Residential Outdoor and Environmental Education Conference, various locations, 1999 - 2013
- Growing the Seeds of Environmental Education, Organizer and Presenter, Trinity, Texas, 1995, 1996, 1997.
- Association for Experiential Education, Lake Geneva, Wisconsin 1983; Austin, Texas 1994 and St Paul MN 2007.
- Association for Interpretive Naturalists, Nacogdoches, Texas 1984, 1995.
- National Science Teachers Association Convention, Houston, Texas 1991.
- Natureshop '90,'91, Camp Campbell Gard, Hamilton, Ohio 1990, 1991.
- Houston I.S.D. Wellness Clinic 1983.
- Texas Outdoor Education Association Workshop 1981 through 1984, 1987.
- Colorado Outward Bound Leadership School – Houston I.S.D. Program 1984.
- Armand Bayou Nature Center, Martyn Farm Festival, Houston, Texas 1982 - 1987.
- Houston I.S.D. Secondary Teachers Outdoor Program In-service 1980.
- Texas Association of Environmental Education 1988.
- American Camping Association, Texas Chapter 1990.

Professional Meeting and Conferences

- Nonprofit Management Series, Bellevue College, 2000
- Association for Experiential Education, Tucson, Arizona, 2000, 2006, 2008
- Residential Outdoor and Environmental Education Conference, Santa Cruz, California 1997, Vancouver, BC, 1998
- Steve Covey's Seven Habits of Highly Successful People (4 days) 1997
- Texas Educational Administrator's Workshop, SHSU Huntsville, Texas 1988 - 1996
- Communication Skills for Women, Fred Prior Institute 1995
- Ohio Organic Foods Conference 1991
- "101" Conference-An Ohio Outdoor and Conservation Education Workshop 1990
- Acclimatization Workshop taught by Steve Van Matre 1980
- Experiential Education Workshop lead by Ron Gager 1981
- "Stalking Education in the Wilds" Colorado Outdoor Education Center 1981, 1983
- Texas Committee on Natural Resources Pow Wow 1980, 1983, 1988
- Texas Environmental Education Association Workshop 1980, 1981, 1989
- Texas Soil Conservation Service Teachers Workshop 1982
- American Indian Heritage Workshop by Rolling Thunder 1983
- Project Wild Workshop 1986
- Making Groups Work, N.C.O.B. School presented by Rod Napier 1985
- Outdoor Education Institute, Texas A&M 1987
- National Science Teachers Association Convention, San Antonio, Texas 1987

Community Volunteer Activities

Pineywoods Food Coop	1983-1997
Trinity Renaissance Initiative	1992-1997
Snoqualmie Valley School Foundation- President Board of Directors	1999-2010
ROEE –conference convener; manager	1998-present
The Waskowitz Foundation	1997-present
AFS international exchange, Host parent, liaison, interviews	2001-present
Springfield College Class of 1979 Reunion Committee – Chair	2009- 2014