

Sierra Nevada College

BRIDGING THE GAP:

THE UNION OF PERSONAL AND ACADEMIC GROWTH

**ARC: DELIVERING LITERACY AND PERSONAL GROWTH FOR ENGLISH
LANGUAGE LEARNERS THROUGH OUTDOOR EDUCATION**

An Action Research Project submitted in partial fulfillment
of the Requirements for the degree of
Master of Arts in Teaching

by

Christine Hooper

Dr. Francesca Bero/ Thesis Advisor

March 2008

We recommend that the thesis by Christine Hooper
Prepared under the supervision be accepted in partial
Fulfillment for the degree of

MASTER of ARTS in TEACHING

Francesca Bero, Ph.D., Thesis Advisor

Katie Zanto, M.A., Committee Member

Jaclyn S. Knaub, M.A., Committee Member

April 2008

TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES.....	iv
ABSTRACT.....	v
ACKNOWLEDGEMENTS	vi
Chapter I.....	1
Introduction.....	1
Background of the Study.....	3
Problem Statement.....	5
Hypotheses	6
Professional Significance of the Study	6
Overview of Methodology	6
Delimitations and Definitions	7
Chapter II	8
Review of Literature	8
The ARC Program and Curriculum.....	13
Chapter III.....	17
Methodology	17
The General Perspective	17
The Research Context	17
The Research Participants	18
Instruments Used in Data Collection	20
Procedures Used	24
Summary of Methodology	26
CHAPTER IV	27
Findings.....	27
Qualitative Data.....	35
CHAPTER V.....	40
Discussion	40
Hypotheses	40
Review of Methodology.....	41
Researcher's Insights	43
Relationship to Previous Studies	45
Recommendations for Further Research.....	46
Researcher's Experience	47
References	49
Works Consulted	51
Appendix A: DAP	52
Appendix B: The ARC Curriculum & the Students	55

LIST OF TABLES

	<u>Page</u>
Table 1. <i>Quantitative Data</i>	27
Table 2. <i>Student Totals</i>	35
Table 3. <i>Base Camp Schedule Sample</i>	44

ABSTRACT

This action research project is an evaluation of the effectiveness of experiential outdoor education, specifically the Adventure-Risk-Challenge (ARC) program, and its intent to bridge literacy and personal growth in order to support student success in the classroom. It examines the connection between personal and academic growth. The focus of this study is on eight English Language Learners (ELL's) that participated in the ARC program during the summer of 2007. All were motivated individuals with a range of literacy gaps, including struggling with writing. This program is unique in its combination of ELL student focus, outdoor adventure and literacy instruction. Therefore, there is little or no research which directly addresses this integration of educational outcomes. The methodology of this research incorporates both quantitative and qualitative data centered on student writing improvement. The results indicate that an integrated academic and leadership curriculum improves student writing significantly.

ACKNOWLEDGEMENTS

I would like to thank the ARC program, the students, and the instructors for their support. This unique and valuable experience helped me understand the importance of stepping outside of the box and the benefits it has on anyone who challenges herself to do so. I also appreciate my husband and family's encouragement throughout this process.

CHAPTER I

Introduction

This action research project examines the subtle yet powerful relationship between personal and academic growth. This study will identify the connection between academic success and personal involvement. The basis of this research is Outdoor Education and the learning relationships associated with awareness, attitudes, and participatory action skills in the context of experiential instruction. The focus is on ELL's that are motivated high school students challenged with reading and writing skills. These students have made the decision to dedicate themselves to 6 intensive weeks in an outdoor setting that combines literacy, environmental studies and personal growth. The personal impact made on each individual during an outdoor educational experience is made effective by the overall focus on writing, journaling, and literacy. According to the article: *Point Release: Strategies for Successful Journal Writing* (Cross, Millard, & Dent, 2005), literature and journaling increases the participants' involvement in their own growth as learners.

This ethnographic study is based on the ARC program offered at the Sagehen Creek Field Station in Truckee, California. The importance of this study is to provide information on outdoor education and its impact on motivated ELL's and suggests how learning through literacy based outdoor educational program enables each learner to academically and socially improve their personal success. ELL's struggle specifically

with written language. The importance of helping overcome this challenge is crucial. Passing standardized tests, written exams and the California High School Exit Exam (CAHSEE) are required in order to graduate. Most often ELL's are challenged with written essays. The difficulties these students have are successfully expressing their ideas, with adequate content, and voice. One of ARC program's main goals is to have each participant leave with the academic ability to successfully pass all standardized tests and the High School Exit Exam. During the outset of the program, students are apprehensive yet excited. In the first week students gain awareness and their attitudes improve. Literacy instruction is integrated in a way that not only helps each individual's personal growth but also creates a respect for shared written work. This strategy allows each student's literacy level to improve and increases students academic ability. This study examines that when student's gain intrinsic motivation and personal empowerment they achieve significant academic improvement.

Part of this research has been based on the concept of the 40 Developmental Assets (DAP) conceived by The Search Institute (2007b), a national nonprofit organization with a mission to provide leadership, knowledge, and resources to promote healthy children, youth, and communities. These developmental assets are concrete, common sense, positive experiences, and qualities that serve as the baseline of what it takes to create qualities essential to raising successful young people. The Search Institute states that "these assets have the power during critical adolescent years to influence choices young people make and help them become caring, responsible adults" (§ 1).

The ultimate goal of the ARC program is to help upper level ELL's make substantial improvement in their reading, speaking, and writing skills. For the purpose of this study, I will only be focusing on the improvement in writing and literacy skills in relationship to the visible personal growth of each individual. The belief of the ARC program is that by helping these students succeed at the high school level, personally and academically, they will in turn graduate and become positive role models for their peers. The ARC program states that when students are exposed to the outdoors and to meaningful curriculum, they return to school with increased self confidence and leadership skills. "We look for the spark in each of their eyes and the moment they push themselves beyond their comfort level, whether it's in a writing assignment, or on the ropes course, or on a sea kayak – and we've seen every student do that. I think that's why they all leave so much stronger. They're all taking risks. They're all pushing through fear. They're all committed to transformation and growth." (The Regents of University of California, 2003).

Background of the Study

With the nationwide focus on No Child Left Behind there is incredible pressure on schools, teachers, and students to be successful. Educators struggle with implementing and meeting the needs of NCLB and the needs of ELL's. It is these learners that are often confused by the content and struggle with remembering the facts. Teaching facts requires learning through rote memorization. While this is legitimate for some learning, such as reading or fundamental math, research has shown that students retain the lesson longer and use it more when they learn the concept supporting the topic (Gilbertson, Bates,

McLaughlin, & Ewert, 2006). The key to learning is understanding and relating concepts to self. The student is not just learning, but “learning well.” Quality curriculums correlated with the standards are of utmost importance to all dedicated educators. Many districts have provided funding for a number of school related programs (before and after school programs, intersession classes and summer school) in order to help struggling students achieve grade level. What is missing in most educational funding, is funding for experiential outdoor education programs. The Truckee Tahoe Unified School District has contributed funding to ARC since 2004. Due to budget costs, 2008 will be the first year their will be no funding in their budget for the ARC program. It is therefore important to understand how outdoor education can enhance the skills learned in school for ELL’s to be successful. A key component for ELL’s success is being able to understand and specify ideas on a more in depth level. In order for this to take place the learner needs to relate all learning to self, becoming academically and personally aware consecutively.

My interest in the benefits of outdoor education led me to the ARC program which allowed me to do an in depth research project on the strengths of outdoor education. Possibly “learning well” is a concept that can be realized in an outdoor setting that will in turn reinforce the classroom learning experience.

The theory behind experiential education began with the idea that personal growth is attained through physical challenge. Later this evolved to adding an intellectual dimension by processing an experience through facilitation and review. Currently, the theory has expanded to include a wide range of personal aspects that bring about balance in the physical, intellectual, emotional, and spiritual realms of personal development.

Research in experiential education began in the mid-1960s. The most well-known program in this field is Outward Bound, a successful world-wide program that has been effectively incorporating outdoor education and learning for many years. In 2002, meta-analytic research evaluated outcomes of outdoor education. According to this study, outdoor education programs “can obtain notable outcomes and have particularly strong, lasting effects. It is clear however, that adventure programs are not inherently good. There is a great deal of variability in outcomes between different studies, different programs, and different individuals” (Hattie et al., 1997, as cited in Neill, 2006, Are All Outdoor Education Programs section, p. 8, ¶ 1).

This study is an evaluation of the effectiveness of experiential outdoor education, specifically the ARC program, and its intent to bridge literacy and personal growth in order to add support to student success in the classroom. The ARC program uses literacy as a tool to help the learner become academically aware while at the same time relating topics to the self in a meaningful way.

Problem Statement

The purpose of this project is to evaluate the effectiveness of the ARC program in developing literacy and personal growth and the added benefits this outdoor education program offers to help support ELL's. The intention is to gather adequate data that will identify the recognizable link between academic and personal growth, specifically the students' improvement in writing and literacy in relation to the students overall personal success defined by the 40 Developmental Assets previously described.

Does an academically based experiential outdoor education program provide the missing link in ELL student success by connecting literacy with personal growth?

Hypotheses

1. Developing a sense of self through outdoor education and integrated literacy instruction will lead to improved writing skills and intrinsic motivation to learn.
2. The ARC program's academic curriculum will provide each student with learning experiences that initiate higher level thinking skills, leadership, and personal growth.

Professional Significance of the Study

Both the population and the setting chosen for this study are sufficiently unique that the study seems likely to advance knowledge in the field of outdoor education, specifically in relation to ELL's. Northern Nevada's and California's population of ELL's has been on the rise in recent years and appears to be increasing. Educators are challenged with meeting the needs of these students. Enabling ELLs to successfully complete standardized tests and continue to aspire to higher education is knowledge that will be acquired during this research process.

Overview of Methodology

This study was conducted by using both qualitative and quantitative methods. It was necessary to incorporate daily field notes in conjunction with numerical testing data. In order to provide adequate results, pre and post assessments were given and scored following a strict protocol to ensure validity. The field notes were recorded from two

viewpoints: active participation and non-participatory observations. In this way, a broad perspective of understanding was applied and recorded. The methodology was put into place the day the participants arrived and continued until graduation day, the final day of the program. The final results are a culmination of the qualitative and quantitative approaches taken during this study on outdoor education and its relationship with ELL's.

Delimitations and Definitions

The boundaries of this study were unique in that only eight students were participating in the summer ARC program. All eight students were selected by the course director prior to interest in conducting research on the program. A control group was neither available nor appropriate to the context of this research. The setting for this research took place at Sagehen Creek Field Station, a research facility 20 miles north of Truckee, California, and run by the University of California–Berkeley. The ARC program, curriculum, and Sagehen will be discussed in detail in Chapter III.

CHAPTER II

Review of Literature

In this chapter, I will examine the pertinent information in regards to experiential outdoor education and the connection to improvement in reading, writing, and self-esteem in ELL students.

Direct experience is the heart of Outdoor Experiential Education. By providing as much direct experience as is reasonable allows students to apply their new knowledge and skills to their previous learning. This helps create a restructuring of thought into a new frame of mind, which can be called learning (Gilbertson et al., 2006). In the book *Outdoor Education Methods and Strategies* (Gilbertson et al.), this restructuring of thought is broken down into five stages:

1. Lived experience
2. Observation and reflection
3. Formation of new insights and conceptualizations
4. Implement new insights and concepts
5. Testing those new concepts

By combining these steps, a student-centered learning environment is structured which will build on the learners' prior knowledge to create new knowledge. Currently there is limited research on these experiences for ELL language development. Since it is sometimes difficult for ELL's to relate to new materials due to lack of vocabulary the

idea of experiencing and relating new knowledge through writing and journaling makes sense.

The ARC program uses a similar model that incorporates three distinct academic disciplines: Leadership, English/Literacy, and Environmental Studies. The ARC program stresses leadership, personal growth and responsibility, the love of the environment, positive risks, challenges, and teamwork through direct experience. A very important goal of this learning process is literacy. The students are instructed in grammar, comprehension, and writing skills. By the end of the course, each student writes and publicly presents a metaphorical poem, a transformative essay, and a narrative biography.

Character education and leadership skills are central to many outdoor programs. Paul Nicolazzo, the director of the Wilderness Medicine Training Center, has been a program designer for over 20 years. In his trainings, he states that the ability of the course instructors to teach character education will determine the quality and power of their course (Nicolazzo, 2008). As previously stated, human beings learn from experience. A key component to learning from an experience is having time to reflect. In the article *Structuring a Learning Experience*, he explains why the Action/Reflection model commonly used in many outdoor educational programs is an effective strategy. Reflection in debrief circles allows for clarification of values and change. He emphasizes that it is extremely important for instructors to remember that reflection must be preceded by a valuable experience. Nicolazzo explains the importance of a structured learning experience. He states that successful activities and progressions create the space for

metaphoric learning and character development (Learning Through Experience section, ¶ 3).

Metaphoric transfer is learning through the skills and experiences, by creating and facilitating learning situations that have parallels to the student's life away from the learning experience. The ultimate goal of the wilderness-based education program is aiding students in evaluating the experience, reflecting upon that experience, and then incorporating the learning into future use (Cross et al., 2005).

Each and every learning experience is personal and unique to each individual. "Each experience is influenced by the unique past of the learner" (Boud, Cohen, & Walker, as cited in Beard & Wilson, 2002, p. 19). They maintained that a person is aware of some elements of the world and oblivious to others, therefore individual perceptions can vary greatly. They state that learning is always related, in one way or another, to what has gone before; there is never a clean slate on which to begin, and unless new ideas and new experiences link to previous experiences they will exist as abstractions, isolated and without meaning. The effects of experience influence all learning. Since not all learning experiences are enjoyable, it is important for the individual to use these less satisfying experiences as learning opportunity as opposed to an inhibition. In Beard and Wilson's (2002) study, they explain that hard knocks and psychological blows are inevitable, but these shocks provide the opportunity for moral lessons and character building.

Character building relates to self-acceptance, self-awareness, self-discipline, and self direction. In the book *101 Ways to Develop Student Self Esteem* (Canfield & Siccone, 1995), the authors state that reality is a function of our perception, which in turn depends

on our frame of reference. Although we may not be able to control the actual circumstances, how we respond to them is up to us, “realizing ourselves as the source of our experience” (Canfield & Siccone, 1995, p. 4). Again, the focus is on experience, it appears that the idea of experience is key to understanding personal growth and academic success. Canfield and Siccone found that by owning your thoughts, feelings, and actions, you put yourself in the position of control; the awareness responsibility extends to your experience of yourself as well as to the circumstances of your life.

“Self-acceptance is our willingness to experience rather than to disown whatever may be the facts of our being at a particular moment” (Braden, as cited in Canfield & Siccone, 1995, p. 4)

In reviewing the literature, the researcher noted a major difference between traditional education and outdoor education. Traditional education is concrete, valid, and crucial. Most outdoor educational programs bring another element into learning by building self-growth consecutively with academic growth. The importance of combining outdoor education with traditional education for ELLs may make all the difference in the world as far as ultimate academic success is concerned.

Learning a language is a long and complex undertaking. Total commitment, total involvement, a total physical, intellectual, and emotional response are necessary to successfully send and receive messages when acquiring another language. Many variables are involved in the acquisition process. Few if any people achieve fluency in a foreign language solely within the confines of the classroom (Brown, 2000). In this same book, psychologist David Ausubel describes his meaningful learning theory. He contends

that learning takes place in the human organism through a meaningful process of relating new events or items to already existing cognitive concepts or propositions- hanging new items on existing cognitive pegs. He contrasts rote learning to meaningful learning: rote involves the mental storage of items having little or no association with existing cognitive structure' whereas meaningful learning is described as a process of relating and anchoring new material to relevant established entities in cognitive structure (Brown, 2000). It is important to note that anyone can make things more meaningful if there is a strong motivation to do so. The outdoor educational experience is one way to challenge and help motivate each individual to succeed in all endeavors. The research was based on a program that appears to realize the true meaning of a successful academic outdoor program by meeting these needs and specifically incorporating activities that will help self motivate each individual.

The ARC program specifically focuses on combining the personal and academic growth of each student by relating each field experience with a self reflective, written project. The purpose of the written work is to expand on necessary vocabulary needed for improvement in the English language, and also to help each student relate this new knowledge to self. It is important to be able to monitor this growth in order to show the success of the program. Additionally, the ARC program bases a portion of the individual student outcomes on a self-reflective questionnaire, the DAP, created by The Search Institute (2007a).

The outcomes of the ELL's in the ARC program depends on the implementation of the intense, standard based curriculum. This research project monitored each student

by combining theoretical data with the 40 Developmental Assets (Search Institute) as well as recording daily reflections and discussions on each individual by each instructor. The DAP created by the Search Institute is a guideline for interpreting assessments, both theoretical and empirical. The items in the DAP framework include 26 external assets and 32 internal assets. These simply worded items represent the content of the eight asset categories (The Search Institute, 2007a, pp. 5-7). The DAP is a questionnaire where students rate themselves in areas of personal reflection, views and perceptions of their surroundings. The profile test given to the students and further information appears in Appendix A.

The ARC Program and Curriculum

The ARC program was founded in 2004 by Katie Zanto. Her experiences in the field of Outdoor Education have provided her with valuable insight and knowledge about experiential outdoor education. She understands the concepts of how to effectively incorporate each distinct discipline into a program that intends to change the life of a child forever. Katie has credentials as a high school English teacher and has taught in a district EL program and has a Masters Degree in Education from Stanford University in Palo Alto, California. She currently teaches composition at the college level. She has devoted a majority of her time and energy to the success of the ARC program (K. Zanto, personal communication, June, 5, 2007). The goal of the program is to aid ELL's in making substantial changes in their reading, speaking, and writing skills. The program and its supporters are confident that helping these high school students work towards meeting grade level will increase their chances in graduating and going to college. The

students also receive 10 high school credits for completion of specific academic assignments (transformative essay, metaphorical poem, narrative biography, environmental science presentation and a public presentation of written work). The belief of the program is that “when students are exposed to the outdoors and to meaningful curriculum and projects they return to their communities with an increased value and appreciation for themselves and their peers” (The Regents, 2003).

The ARC program has its home base at UC Berkeley’s Sagehen Creek field station just north of Truckee, California. In the summer of 2007, ARC was able to fund another outdoor education program in Sedgwick, Santa Barbara. The ARC program is funded by donations from local businesses, foundations, and grants. The money raised is used to hire staff, recruit students, and organize the variety of activities planned for student success. Sagehen Creek field station is an environmental research facility that has a computer lab, kitchens, showers, and cabins designated for specific environmental study. The ARC participants share access to all of the facilities and have their own base camp with tent platforms, complete with bunk beds, an outdoor classroom and meeting area as well as a small “library” supplied with books, classroom materials and field gear.

The program curriculum is very intensive allowing minimal free time. The students are actively engaged from 6:15 am to 10:00 pm and are always monitored by a staff member whether is be directly or subtly (see Table 3). The curricular objectives are correlated with California State Standards and include Language Arts (grammar, word analysis, fluency, reading, written and oral conventions, writing strategies and applications, listening and speaking applications), Environmental Literacy and Science

(writing applications and strategies, speaking applications, and strategies), Leadership and Physical Fitness.

Since 2004, the ARC students have had an 88 - 93% passing rate on the Language Arts section of the CAHSEE (K. Zanto, personal communication, June, 5, 2007). The goal of this research project is to determine whether or not experiential outdoor education provides the missing link in ELL students' success by connecting literacy with personal growth. Hypothesizing that developing a sense of self through outdoor education will lead to confidence in academic endeavors, particularly in writing and reading; positive risk-taking will help overcome fear and anxiety of the overall person, leading to higher self-esteem and academic success; journaling and writing will help the learner relate to self, thus being able to include specifics (ideas, voice) into writing activities.

The importance of meaningful learning and relating each experience to oneself appears to be key in understanding how ELL's develop their skills in both written and oral comprehension of a language acquisition. The purpose of experiential outdoor education is to correlate personal growth and self-esteem with academic success through a variety of academic, physical and mental activities not commonly found in the classroom environment. Learning from experience and having time to reflect on this experience through written and oral activities is unique to the outdoor education program, specifically the ARC program that bases its guidelines and curriculum on academic success.

Even though the ARC program has been able to provide data demonstrating successful student outcomes, this research wanted to study specifically what exactly

happens to positively transform the students both academically and intrinsically. The following chapter will describe in detail the methods performed hoping to create a greater understanding of the benefits on ELL's involved in and outdoor educational program.

CHAPTER III

Methodology

This chapter explains the methods used in carrying out this study concerning the effectiveness of outdoor education in relation to literacy and academic improvement. Another aspect researched and monitored is the personal growth of each individual before, and after each field experience. The purpose was to use both qualitative and quantitative data to support the hypotheses and attempt to answer the premise for this research: Does experiential outdoor education provide the missing link in ELL's student success by improving literacy and personal growth simultaneously?

The General Perspective

The initial approach to this study was from a qualitative, ethnographic standpoint. The goal was to incorporate field notes along with active and inactive participatory and non-participatory observations in an attempt to understand the norms of behavior. In this manner the researcher hoped to obtain sufficient data supporting the effectiveness of each daily activity and each individual's growth during the 40-day intensive outdoor learning program. As the methodology evolved, it was noted that there was equal importance of including quantitative data to help support the research question.

The Research Context

This study took place at the Sagehen Field Creek Station located north of Truckee, California. Sagehen is operated by the University of California–Berkeley, and

facilitates various research projects throughout the year. The ARC program has had full access to the facilities for three years. The students involved are housed in a tented dormitory setting that includes an outdoor classroom, “Leo’s Lounge;” a cabin that provides shelter for evening closing activities, storage space, academic supplies and a small library for the students. This area is specifically designated to the students involved in the six-week program. In the main compound are shared showers, a kitchen, a science lab, as well as various outdoor study areas. The program began on June 26, 2007, and continued for six weeks. During the six-week time period, the students spent a portion of their time at base camp and an equal amount of time in “the field.” It is at this time the students began to build relationships and incorporate leadership skills.

The Research Participants

The participants in this specific summer program were previously selected by the course director through a series of interviews. The requirements included a strong desire to learn, parental support, and a teacher/mentor recommendation. The interviews for potential participants were conducted by the director of the ARC program throughout the 2006/2007 school year. Teachers from the North Tahoe, Truckee area, and instructors from the Summer Search program (a leadership recruiting organization) were asked to recommend specific ELL’s who needed a meaningful way to spend the summer or students who were motivated but needed assistance in their written and oral comprehension. It was also important that the students recommended to the program were willing to challenge themselves and experience the outdoors for an extended period of time. After the initial recommendations from individual educators, the ARC program

director spoke with each potential student and their parents. The parent/student interviews and discussions were very in depth and thorough in explaining the program and its curriculum. Parental support was crucial in considering the participants for the ARC summer program. The director made many visits to the homes of students that were interested. All participants were ELL's from low income families. During the 2007 summer ARC program, the accepted students were of Mexican and Chinese backgrounds and ranged in age from 14 to 16, all having just completed either their freshman or sophomore year of high school. The academic status of each student varied. Two of the participants have qualified for special education while others maintained a high grade point average. The eight students consisted of three girls and five boys. The girls were all from the Tahoe, Truckee area with Spanish speaking backgrounds. Three of the boys were also from the Tahoe/Truckee area with Spanish being their native language. The other two boys were from the Summer Search program, one with a Spanish speaking background and the other a native Chinese speaker who has been in the United States for two years. Each participant appeared to be facing challenges in their personal lives including family and peer related issues.

All participants and instructors were aware of this research project, realizing that the ultimate goal was to show the benefits of outdoor education in relation to literacy and personal growth and possibly discern any areas that may need improvement. Even though the instructors were not directly involved with this study, they played a very important role in aiding student growth and success. The staff included the ARC Director, a Course Director an English instructor, a Leadership instructor and an Environmental Studies

instructor. Each staff member understood the components of a successful outdoor education program, having had years of prior experience. Their standard based curriculum included an intensive day of grammar, literacy, and leadership activities.

Instruments Used in Data Collection

Several instruments and recording processes were used in the data collection process. First was a survey conducted one week prior to the course. The survey consisted of four questions that attempted to understand the student's expectations of the upcoming program. The survey was given during Parent Night, a meeting that allowed fellow parents and students to ask questions and complete all necessary paperwork needed. The Parent Night was conducted by the ARC director and the staff. It was at this time I was formally introduced and able to explain my role as a research student during the ARC summer program. This was my first meeting with the Tahoe/Truckee participants.

Four days later, I met with all eight of the Tahoe/Truckee students to conduct individual interviews and administer a pre-assessment exam that evaluated grammar, comprehension, and writing traits. I also administered the DAP discussed briefly in Chapter II and can be viewed in its entirety in Appendix A.

Each formal interview consisted of 13 questions and lasted approximately 20 minutes. The interview questions were adapted from the DAP and intended to understand student attitude, the general background of each student, how each student perceives themselves, their surroundings and future. Also at this time, I noted each individual's English Language ability.

The DAP and pre-assessment exam was administered at the Truckee library. A strict protocol was followed to insure accuracy and consistency. The DAP was administered first, this questionnaire lasted approximately 10 minutes. Next, the pre-assessment exam was handed out. A two-hour time was given to complete the exam; the written portion of the exam had a requirement of 30 minutes. If more time was needed by the student, it was allowed and recorded. With the help of the course director, a meeting with the other student from the Tahoe/Truckee area was arranged at a local high school. The DAP, pre-assessment exam, and formal interview were conducted. The two remaining students from the Northern California area would be arriving by bus on the morning of the first day of the ARC summer program. I met with these two students at base camp upon their arrival. First, I conducted the formal interview with each student, then administered the DAP and pre-assessment exam following the same strict protocol as mentioned above. The purpose of the DAP and assessment exam was to acquire a baseline score for each individual student. The interview was an attempt to understand each student's perceptions prior to beginning their ARC summer program.

Next, I incorporated observations, informal interviews with the students, field notes and discussions with instructors. These procedures took place at the Sagehen Creek base camp at various times throughout the day and were recorded in narrative form.

The students spent their first day getting acquainted and acclimating themselves with Sagehen and within two days were off on their first field expedition that included climbing Mt. Chango, swim trials (to assess each student's ability), and various leadership activities. The first passive observation began when the students returned to base camp

and began their academics. I began with recording student participation and general attitudes during direct instruction. These passive observations continued for a few days. At this time, I was able to develop a comfortable relationship with the students that allowed me to observe without being intimidating. I continued recording participatory actions, and also began interacting with the students during their academic activities. I spent time in each specific course observing and helping students one-on-one with questions concerning grammar and literacy.

The reading block was split into two groups; an upper level that read fairly fluently, and another level that struggled with reading and comprehension. During the reading block, I participated as a group member, reflecting later in journal entries about general observations and students comments during the activity.

The data collection procedures continued with field notes and journaling for the remainder of the program. Day 14 of the program was the Ropes Course at Project Discovery. Project Discovery is a program that offers programs to public and private schools for team building and wilderness retreats. The ARC students and instructors arrived at Project Discovery off the Mount Rose Highway on the evening of the thirteenth day of the course. They spent the night in a teepee learning Native American stories and discussing the following day's events. The students participated in the High Ropes Course that included ground elements as well as elements in trees between 20 and 65 feet. The High Ropes Course specifically emphasizes risk-taking, trust, and teambuilding. The purpose is to allow participants to expand their comfort zones and recognize fears

that may block personal achievement. For this reason, the Ropes Course was purposefully planned to take place at this time in the program.

This was a very intensive day for the students and instructors as it is a turning point for each student in their personal growth process. I attended the full day activity speaking informally with the students, and also participating in a ropes activity (I feel this developed a deeper trust with the students and gave me a full realistic understanding of the outdoor experience and its impact on individual students). Throughout the day, I recorded student attitudes towards one another; which students actively participated, which students appeared to be leaders, and which students needed a “push” in order to fully participate. A very crucial part of the data was recording each student’s future goal, noted was the significant change in attitude compared to their initial interview responses.

This day of the 40-day program was clearly a turning point for each student. As the ARC program progressed in intensity, so did the curriculum. At base camp, I continued to incorporate myself into each activity including grammar, English, group readings, science class, meal preparations, and free time. All data was recorded in narrative form and filed according to daily program progression. The last week of the program is a culmination of student personal growth and academic work. I recorded student attitude and feelings on their science presentation, noting anxiety and excitement by comments made pre- and post-presentation, I was also able to join the students’ evening leadership activities which involved reflective discussions about themselves and their fellow ARC members. The last day of the program consisted of post assessment testing and program evaluation. The DAP was administered as well as the assessment

exam given at the beginning of the course. The exam was the same one given previously and followed the same strict protocol that required a minimum of 30 minutes on the written portion of the test. The following day was graduation, families and friends arrived along with community leaders and ARC supporters. The students publicly recited their reflective poems with intensity and emotion. I later reflected in field notes on the intensity of emotion and individual growth both personal and academic.

Procedures Used

In carrying out the research design, several specific procedures were used. First, it was important to gain access to Sagehen Creek field station. Access was obtained by filling out a research application that explained the intention to conduct an action research project on the ARC program and its participants. It was necessary to justify the importance of this research and have a general schedule of the days it would be necessary to stay at Sagehen. The manager of the Sagehen Field Station approved my application, and was looking forward to adding new research to the Sagehen library.

Second, I met with the ARC program director many times to create a schedule that would most benefit my research. In working with the director, I noted specific times and days to conduct my study. At this time, we discussed the testing protocol and times. We wrote out specific instructions on administering the DAP and assessment exam noting that all students must be given the same directions, time limit and atmosphere in order to allow for consistency and validity. This was important since not all students were able to test at the same time.

The participants in the ARC program were pre-selected by the director. They were all ninth and tenth grade high school students that were ELL's willing to engage themselves in an outdoor education program. Each participant spoke English but had gaps in their reading and writing skills, and needed some kind of intervention to help them pass standardized tests and specifically timed written exams. All students were given the pre and post DAP and assessment exam. The formal interviews were conducted using the same questions for each student, tape-recorded and transcribed into written form.

Due to the uniqueness of this program and the small sample group studied (eight students) an experimental and control group was not relevant.

Data Analysis

The data were analyzed using several strategies. First, the data were reduced by transcribing the formal interviews. The informal interviews were separated and filed with each student's records. All notes, including narrative recordings, field notes and journal entries were categorized according to student response and specific observations, then filed with each participant's records. The DAPs were scored and recorded, then broken down into the specific aforementioned target areas of internal and external categories. Once the area-specific scores were recorded, they were analyzed to show either growth or decline in each area. (See Table 1). Next the pre- and post-assessment exams were scored. On the written portion of the exam, three independent readers (including myself) used the CAHSEE writing traits rubric to score each essay. The pre-and post-scores were

recorded and analyzed to show either growth or decline for each section of the exam: grammar, comprehension, and writing.

Summary of Methodology

The study included both quantitative and qualitative data in hopes of obtaining as much pertinent information as possible. In using the Qualitative approach, I attempted to obtain a non-biased view of how the program operated and how each student's reaction to the experience affected him/her academically and emotionally. By describing and narrating events and comments, it should be able to demonstrate what it was that made the program successful. The Quantitative data was used to assess academic growth in specific areas, mainly literacy. The data from the DAP's was intended to show student perception of personal growth. The purpose of using both qualitative and quantitative data was needed to help analyze the premise for this research: Does experiential outdoor education provide the missing link in ELL's student success by connecting literacy with personal growth simultaneously?

The importance of recording comments, perceptions and attitudes in combination with actual assessment data will hope to show how "learning well" and relating self to experience enhances the language acquisition process and leads to success in the classroom.

CHAPTER IV

Findings

This study examined the positive influence on ELL's when exposed to a curriculum centered around the outdoor educational experience. The focus was specifically on each of the eight students success in writing in relation to their personal growth during an intensive 40-day period.

The following results are presented in chronological order. The significance of this organizational strategy is important because of the specific notable growth made by each individual on a weekly basis. The combination of qualitative and quantitative data will be outlined in a way that takes the reader from Day 1 to Day 40, the final day of the ARC summer program.

Table 1. *Quantitative Data*

Student	Part 1 (10%)	%	Points	Part 2 (60%)	%	Points	Part 3 (30%)	%	Points	Final Score	Needs work/ comments
Student A Test 1	19/25	76	7.6	15/24	62.5	37.5	3	85	25	70.1	3 point improvement P1/ significant increase (7points) P2/increased from a 3 to 4 in writing. Visible growth in all areas
Test2	22/25	86	8.6	22/24	92	55	4	100	30	93.6	23.5 improvement

Student B Test 1	22/25	88	8.8	20/24	83	49	2.5	77.5	23.25	81.05	P1-3point improvement with perfect score on test 2/ P2 same score/ P3 significant growth, 15% Most growth in writing and grammar
Test 2	25/25	100	10	20/24	83	49	3.5	92.5	27.75	86.75	5.7 improvement
Student C Test 1	23/25	92	9.2	19/24	79	47.5	3	85	25	81.7	P1 same score/ P2 1 point growth/ P3 2.25 growth. Fairly consistent on pre and post test Slight growth in comprehension and writing
Test 2	23/25	92	9.2	20/24	83	49	3.5	92.5	27.75	85.95	4.25 improvement
Student D Test 1	17/25	68	6.8	14/24	58	35	2	70	21	62.5	P1 4 point growth/P2 3 point growth/ P3 half point increase. Most growth in part 1, although did increase slightly in all areas.
Test 2	21/25	84	8.4	17/24	71	42.5	2.5	77.5	23.25	74.7	12.2 improvement
Student E Test 1	16/25	64	6.4	7/24	29	17.4	0	0	0	23.8	P1 slight drop of 1 point/ P2 same score / P3 Very significant growth improving score by 62% thus almost doubling overall score. Growth: writing
Test 2	15/25	60	6	7/24	29	17.4	1.5	62.5	18.75	42.15	18.35 improvement
Student F Test 1	21/25	84	8.4	14/24	58	35	2	70	21	64.4	P1 improved by 1 point/ P2 noticeable growth by 4 points/ P3 noticeable growth- 1 full score, helping improve score by 14.4% Growth: Writing and comprehension
T2	22/25	88	8.8	18/24	75	45	3	85	25	78.8	14.4 improvement
Student G Test 1	18/25	72	7.2	20/24	83	49	2.5	77.5	23.25	79.45	P1 3 point improvement/ P2 score dropped by 3 points/ P3 same score, no change. Overall decrease in score. Most growth: grammar
Test 2	21/25	84	8.4	17/24	71	42.5	2.5	77.5	23.25	74.15	-5.3

Student H Test 1	23/25	92	9.2	19/24	79	47.5	1.5	62.5	18.75	75.45	P1 improved by 2 point for a perfect score/ P2 improved by 4 points/ P3 significant improvement 11%, went from a not passing score to .5 points of a perfect score. Most growth: writing
Test 2	25/25	100	10	23/24	96	58	3.5	92.5	27.75	95.75	20.3 improvement

Note. 11.6 (12) point average improvement; Highest = 23.5; Lowest = -5; Only one student showed decrease.

The pre assessments administered established a baseline score for each student in the areas of grammar, comprehension, and writing. The post assessments demonstrated growth for most students in all areas. The grammar portion consisted of 25 questions requiring students to circle the correct word for each of 25 sentences. Five of the students increased their scores, one student significantly improved by 16%. One student remained consistent with a score of 92%, and one student score decreased by 4%.

In comprehension, students were asked to read a passage and answer multiple-choice questions pertaining to what they had read. There were four passages: an excerpt from Maya Angelou's book *Wouldn't Take Nothing For My Journey Now*; a selection from an employee manual explaining the job description of working at a video rental store; a poem; and a rough draft of an essay discussing how opposite sides of the writers brain might influence personality and behavior.

Three students showed phenomenal growth ranging from a 17% to 29.5% improvement. One student remained consistent with a score of 83%. Two students improved by 4% and 13%. Of the two remaining students, one maintained a score of

29%, the other student score dropped by 12%, but still received a passing score of 71%.

Overall, seven of the eight students made improvements or maintained a high score.

The third part of the exam was the written response. The students were scored using the California High School Exit Exam rubric which rates each paper as a 4, 3, 2, or 1; 4 being the highest. The importance of the writing scores are very significant because that is where I hoped the most growth would be made, addressing the first hypothesis: developing a sense of self through a literacy based outdoor education program will lead to academic success in writing. The data showed considerable growth for all students, 7.5 to 30 percent, only one maintained a consistent score of 77.5%. Although one student (Student E) failed to receive a passing score, it should be noted that on the pre assessment this student scored a 0 due to lack of understanding the writing prompt. On the post assessment, the student demonstrated understanding of the topic and improved on ideas, receiving a score of 62.5%.

Each student also produced a metaphorical poem, as a way to demonstrate self expression, a narrative biography, intrinsically motivated by the meeting of a new friend/mentor, and final transformative essay that showed a progressive reflection of the entire course. An environmental science lesson was also presented by the ARC students to the children of the Boys and Girls Club. These assignments began taking form the second week of the program and continued to develop throughout the course. These assignments were teacher directed but all of the ideas and content were ultimately student-produced. An example of a metaphorical poem and excerpts from the transformative essays follow:

Building Great Castles In The Sand

I am a small ant

Black and fast

Never staying in the same place,

Moving strongly, socially, intelligently,

As a team player.

My colony is always active.

We give each other privacy and respect,

We learn to become leaders.

I use my antennas to circle the group

Together, we communicate about our

Plan for the day.

Our days are long,

But fun,

Because we cooperate.

At home I never help my mom,

Being lazy taking everything for granted,

But now I help.

I work with others as a team.

I am a small ant

Funny and helpful.

When I crawl on your arms, I tickle.

I try to make you laugh so that you

Won't feel bad.

Do you need a break?

I will take your load.

Encouraging you, listening,

Building great castles in the sand.

This metaphorical poem was written by student E.

Excerpts from the transformative essays:

“Rebirth”

“I used to be lazy. If you asked me to do something, I would never get it done. I used to sit on the couch and watch TV while my family cleaned around the house. Every summer the whole family would get chores done around the house like paint the walls or clean up the yard. I would never do any of that; I would just sit and see people do it for me. When my family would go somewhere I would try to stay as far away from them and go my separate way. I never cared about anyone except myself. When my brothers and sisters needed help, I was never there for them...My rebirth started at the Ropes Course.

“Inner Person”

My inner person came little by little. I started to notice that I am not as serious. I bring a smile to the group and to every day. I tell funny jokes and sing lovely melodies. I love this person I wish I could always keep this person but I am afraid of the change when I go back to my life. I am afraid of what people might think. I might not even have the same friends I had. Who knows what will happen after these forty days. I might be dragged down by another sibling and be forced to do drugs. I will face them and say no. I want to accomplish my goals and stay away from bad influences. Thinking of how the ropes course transformed me, I know I have the determination to be this new person. I know I can do this by the support of my ARC family. I have developed a new sense of style. I know I can do this and I will.

“Compassion, Style, Determination & Physical Fitness”

Throughout these forty days, ten great people have taught me to not care what other people think about me, not to care if people judge me, and to appreciate the qualities of each and every single person. I am no longer afraid to take risks. I am supported and I am loved. I am no longer afraid of walking out my front door without make up. I am no longer afraid to be me! When I look out into my future, I see how much I will have to work to become a doctor. However, I know that in the end, it will all be worth it. Just like climbing Mt. Judah, Granite Chief or Castle Peak, I will set aside all my pain and will continue steadfastly toward my goal.

“My Lazy Life”

I want to thank the 007 ARC agents because they encouraged me to do all of the obstacles from the rope course that we had to accomplish. Now I help out and I have confidence in myself and also have confidence in my friends from ARC. I'm not afraid to tackle new challenges or to express myself any more and I communicate with all of the people that are around me. Now I can even cook a good healthy meal. I can't wait to help at home and make my mom a good healthy dinner.

“Mission Accomplished”

Since the beginning, I challenged myself to be determined, give love, and confidence to those who needed me. I challenged myself to not be scared and sometimes to give without receiving. I challenged myself in many physical, mental and emotional ways. I knew it was going to be hard to give my 110% because there were many obstacles. Finally I said GOOD BYE to being selfish, my “I can't,” and all of my bad qualities.

Now, ----- has accomplished her ARC mission. I am ready for all the journeys that are waiting. I have more goals and dreams to accomplish. I will influence my family and the people in my community. I now know I can “be the change I want to see in the world!”

“A Stepping Stone”

I am not the person I was before. I found my essential values. I found out the inside of me. I am a person who needs encouragement. I am a person who is not afraid of challenges. I am a person who is willing to try everything. I am a person who has the ability to overcome obstacles. I am a person who cares about others and wants to help others. I am a person who is going to start a whole new life, my life. I am -----.

“The bravest man faces the risk of being called a coward”

Checking in with two instructors became my tool. John, an instructor, was one I went to. He gave me examples from his life and told me the weirdest joke. The joke had a meaning and a

funny message to understand. It had to do with being a pirate and realizing the “ARGH” and the “I” in pirate. I come to realize I am a true pirate. The only one that messes with me is me. Another thing that stuck with me that he shared is that his friend is Scottish and always told him, “Lighten up Johnny.” Accepting that some people aren’t going to change is my way of lightening up. Another instructor, Jeff, always sets aside what he was doing and listens to what I had to say. He’s made me realize that I truly need help. He’s helped me open up more and feel comfortable letting others know what is going on within me. He’s encouraged me and brought hope for change and success. He’s helped me realize what’s causing my frustration and what I can do when it occurs. He said, “The best thing to do is to stop for a minute and look deep inside yourself and figure out what’s underneath the frustration. Acceptance starts with awareness.” He’s showed me myself in forty days. I’ve learned not from him but I’ve learned more from looking within. I look up to this strong and wise person that is always willing to help out someone in need. He’s changed me and made me more confident in myself. I developed techniques that can help control my frustration and anger. Reflection and my need for exercise are two of these techniques. I reflect more often now. I leave the group and go within. I can deal with life without getting frustrated. The other is my need for being physical. I usually run or work on my physical fitness. Being active helps me to get in a good mood. I’ve learned to accept rather than be dragged down to the ground is another technique.

I came to the ARC program to have fun and enjoy myself for the summer, but due to physical problems with my stomach and anger this was a true challenge. I have learned to accept people for who they are, taking time to reflect and understand my emotions, being able to talk about the problems that are bothering me, to seek advice from others, and to have fun not letting your frustrations drag you down. Being able to experience this program has given me value that I can take with me on my next adventure.

The student writings demonstrated the personal growth achieved by each individual. A sense of self developed through reflection and writing. It is important to note that a major turning point in this program appears to have begun on Day 14 at the Ropes Course.

Quantitative data was also taken from the DAP. The DAP presented a score for how each student thinks reflectively about themselves pre-ARC summer program as well as post program. This student profile was scored individually and given an overall score including both external and internal assets. This study chose five specific areas that would be scored: (1) constructive use of time, (2) commitment to learning, (3) positive values, (4) social competencies, and (5) positive identities.

The first assessment showed an overall student average score of 23.6; the highest possible score is a 30. The final scores averaged 25.53. The most notable growth was found in the areas of commitment to learning and positive identities.

Table 2 displays the totals of each area for each student. An overall growth is demonstrated for six of the students, two students scores dropped slightly.

Table 2. *Student Totals*

DAP	Pre-assessment	Post- assessment	Growth/Decline
Student A	26.6	29.9	3.3
Student B	22	28.8	6.8
Student C	21.4	22.2	.8
Student D	23.8	28.2	4.4
Student E	27	28.4	1.4
Student F	15.8	15.25	-0.55
Student G	24	25	1
Student H	28.9	27	-1.9

Qualitative Data

The data included here is taken from a questionnaire, formal interviews, and field notes. The responses to the questionnaires all demonstrated a common component of the need to improve academically, specifically in English. The general worry of each student prior to the program was not being able to use their native language (only English was allowed) and being away from family and friends for an extended period of time. The

initial interview, conducted before the students arrived at Sagehen, helped me get acquainted with each individual and also provided a response to the question: What do you see yourself doing in the future? What are your goals? Most goals were very vague and provided little insight. For example, a general response was: “do good in school, get a good job, get my own apartment.” When asked again midway through the program, the goals appeared to have more focus. Examples follow:

“I want to become a better person and forget the past”

“I will be more confident and not let past frustrations get to me, I am going to enjoy life”

“I am going to fight fear, and not say I can’t anymore”

“I have so many goals now, I am going to care about people more, be helpful and go to UC Berkeley.”

Field Notes

I passively observed the students getting to know one another, their instructors, and the rules and regulations. I sat in for the first week of instruction in grammar and reading and noted student participation. Three of the eight students continually raised their hands and willingly responded while the other five had no response even when prompted by the instructor. Clearly, Student A was a leader, consistently keeping everybody on task. Student B remained very quiet and focused. Student E and F were consistently off-task, drawing on folder, continually refocused by teacher. Students C, D, G, and H appeared to have positive attitudes and stayed on task. As time progressed, the intimidation factor seemed to fade. The third week of the program, following the

experiences at the ropes course, I noted a change in attitude, Students E and F were visibly becoming more independent and willing to share feelings they were experiencing. It was at this time participation in the classroom from all students notably increased.

The most notable change happened when the students and instructors went to Project Discovery and participated in the Ropes Course activities. These activities provided a unique experience including team building and positive risk-taking. The ropes course was specifically student-centered; it was necessary that each student support one another with positive words and active participation, otherwise success was not possible. The desire to succeed was obvious, all students met before every task and discussed how to best overcome each challenge, they set up a strategy and talked amongst themselves about how each person had to give it their all. The students purposefully encouraged one another in hopes a completing a specific task. Each rope activity required the support of the other students.

The day of the ropes course activities students expressed their feelings as “very excited,” “scared,” and “intimidated.” This was the first time during the program that Student F was visibly excited. My previous field notes showed that Student F was continually distracted or off-task, rarely participating during class. Student F was the first to tell me how “cool” it was to spend the night in a teepee, related all that took place including how he/she participated in the group activity as a main character. Student F continued to be a leader throughout the course of the day. The culmination of the ropes course activities led to a final challenge: While standing on a platform 20-feet high, state

a goal, jump and grab a bar about 5 feet away. It was at this point I recorded the change in each student's attitude and personal growth by noting their changes in specific goals:

Student G Day 1 interview: "Do good and get good grades. Graduate high school"

Ropes course: "I dedicate myself to gain more knowledge and have more fun, UC Davis here I come."

Student B Day 1 interview: "study hard, go to UC Berkeley"

Ropes Course: "I want to be a better person by being more helpful and care about people more and definitely go to UC Berkeley"

Student E Day 1 interview: "Keep playing football and stay out of trouble."

Ropes course: "My goal is to fight fear and to not say I can't do it anymore." "I know now that I can do anything!"

The qualitative data recorded in field notes showed personal growth in each individual, particularly Student F. For the two weeks following the ropes course Student F showed a higher level of interest during the base camp academics, interest was demonstrated by actively participating during teacher led instruction, willingly volunteering responses and helping others in class. At this time, the completion of the transformative essays and the metaphorical poems were required. The students worked together to edit and recite their writings, giving each other feedback and support. The metaphorical poems were publicly presented to the community, with great emotion by the students, including tears. This exercise demonstrated how much personal thought and effort were put into each poem.

A final note on the qualitative data collected; Students clearly began participating more in the classroom as a whole group by discussing thoughts and ideas presented by the instructor. They also demonstrated genuine compassion for each other by enabling each fellow “arcie” (a name the students created to refer to themselves) the freedom to safely discuss and reflect on feelings and emotions transpiring throughout each day. A sacred time was set aside each evening for a group discussion circle. During this time, peer evaluations and feedback were discussed, and challenges and issues were resolved without fear or intimidation.

The support each individual showed for one another grew, improving academics as well as specific base camp activities such as meal preparation, cleaning duties, and general support of one another throughout the day. Each student appeared to enjoy the others successes.

CHAPTER V

Discussion

This final chapter of the research project restates the significance and purpose of this study. It will review and include the methods used and summarize the results noting relationships to previous studies and suggestions for additional research.

The purpose of this project was to evaluate the effectiveness of the ARC outdoor education program in developing literacy and personal growth for ELL's at the high school level. The researcher's intention was to gather adequate data that will identify the recognizable link between academic and personal growth, focusing specifically on the students' improvement in writing and literacy.

Does an academically based experiential outdoor education program provide the missing link in ELL's student success by connecting literacy with personal growth?

Hypotheses

1. Developing a sense of self through outdoor education and integrated literacy instruction will lead to improved writing skills and intrinsic motivation to learn.
2. The ARC program's academic curriculum will provide each student with learning experiences that initiate higher level thinking skills, and personal growth, including improved attitudes and compassion for others.

Review of Methodology

The intensive 40-day outdoor education program for ELL's offered by ARC challenged each student academically by creating a curriculum that incorporated the surrounding environment with academics. The students involved were highly motivated but needed help in academics, specifically writing, due to lack of English language skills. Both a qualitative and quantitative approach was used to support the hypotheses and answer the premise for this research.

A majority of this study relied on personal observations, field notes, and informal interviews. The researcher spent a significant amount of time at base camp interacting with and observing the students. It was important that each student feel a level of comfort with the researcher in order for significant, valid data to be recorded. Daily observations began during opening activities in the morning and continued throughout the day, lasting approximately seven hours. On Day 14, the observation took place at Project Discovery's Ropes Course; a turning point in the program that demonstrated personal growth for each individual student. The students challenged themselves on the high ropes course. This course emphasized risk-taking, team building, and trust, it is a time in the program that students expand their comfort zones and recognizes personal fears.

The quantitative data was equally important in that it helped provide information that supported the research question. This consisted of a pre and post written assessment, and a personal profile survey.

Throughout the entire six-week period of the study, a steady progression in each student's academics and personal growth were observed. First, the results of the pre

assessment exam were put aside until comparative data was available. The observable qualitative data was used daily for reflection and discussion. The discussions took place between the researcher and the instructors of the program. These weekly talks helped validate and give insight to any relevant details needed. The instructors played an important role in helping identify strengths and weakness both personally and academically in each student. Midway through the course a notable change took place in many of the students, personal growth was demonstrated, and intrinsic motivation appeared during academic activities. As the six-week course continued a culmination of written work was edited and revised taking on its final form. Although much of it was teacher supported, the ideas and “feelings” or voice put into the papers came directly from the students. The first written piece was a metaphorical poem that related the self to an aspect of nature. In the last week, these poems were read aloud in a public forum with much feeling and what appeared to be pride.

Finally, the culmination of qualitative data helped provide valuable information that supported the research question. The quantitative data collected from the beginning of the course was then compared to the post assessment exam and post personal profile survey. An overall growth was indicated in both areas.

1. Post assessment scores showed an increase in proficiency of the English language, specifically grammar, comprehension, and writing. A 12-point average overall improvement.
2. Students acknowledged their own personal growth verbally and showed enthusiasm for all they had written and accomplished.

“I know I can do anything now.” “Totally, me too”

(Quote overheard by researcher, discussion between two of the students during a casual conversation after the Ropes course at Project Discovery).

It is important to note that the initial approach of this research was to participate at base camp at least twice a week, during different hours of the day. After the first week, it was evident that in order to gain adequate knowledge and truly understand the students' experiences, I needed to be there almost daily. To facilitate this, instead of commuting daily from Reno, I camped at Prosser Lake, only a 10-minute drive to Sagehen Creek field station, the ARC base camp. Once relocated, it was possible to spend a majority of my time at base camp. During this time, I changed my role from a passive observer to an active participant. Dropping by occasionally would not have made this possible. It was important to build a relationship with the students and gain their trust, in order to hear from students individually and record their true feelings and experiences.

Researcher's Insights

On the basis of this study alone, it is difficult to be certain that all outdoor educational programs will be as effective as the ARC program. Most outdoor educational programs do not offer a literacy based curriculum specifically geared towards ELL's. The director of this program insisted on overall academic advancement. The ultimate goal was to have each participant return to school with increased academic skills needed to successfully pass standardized tests and state written exams. The instructors were all highly qualified and had more than adequate experience in the field of outdoor education. Even though academic success was the main goal, it was also crucial to build self-esteem.

This cannot be accomplished by academics alone. The ARC curriculum incorporated daily activities that promoted leadership skills, respect, and personal responsibility. There was no point throughout the day that activities were not meaningful. From 6:15 am to 10 pm the students were actively involved with the outdoor experience, whether it was preparing breakfast, walking from base camp to the classroom or writing a letter home. All activities (unbeknownst to the students) were structured—basically, there was no “down time.” This type of structure helps the students grow in a way that was not intimidating or frustrating.

Following is a sample base camp schedule:

Table 3. *Base Camp Schedule Sample*

TIME	ACTIVITY
6:15am	Wake –up
6:30	Stretching
6:45-7:20	Fitness
8:30	Prepare for class
8:45-9:45	Grammar blast
10:00-12:00	English block
12:00-12:50	Lunch
1:00-2:00	Group reading
2:10-4:00	Science class
4:15	Afternoon free time
5:15-6:00	Cook dinner
6:00-6:30	Dinner
6:30-7:00	Clean up
7:15-9:00	Leadership activity
9:00-9:45	ABC news (evening discussion circle)

The importance of this research is to offer the reader an in depth insight as to how a program such as this works and to be able to ascertain the individual student successes.

As the researcher, I was initially intrigued and excited to be a part of this educational experience. I was aware of outdoor educational programs but none that related

specifically to literacy and ELL's. Coming from a school that has a majority of ELL's, I understood the need to learn new ideas in order to aid these students into becoming successful.

Relationship to Previous Studies

Research indicates that language learners learn best when they can relate a meaningful experience to themselves. Students retain a lesson longer and use it more when they understand and relate a concept to self (Gilbertson et al., 2006). This is a key element when discussing outdoor education. According to Paul Nicolazzo (2008), director and outdoor educational program designer, a key component to learning from experience is having time to reflect (Closure section, ¶ 1). The observations I made as a researcher supported this theory. Every day was a new experience for the students. As they began to get to know one another, they began to reflect on each day. As time progressed, so did the reflection and journal entries appeared to become more meaningful and the academic writing activities made more sense to them. Through a metaphorical poem, they were able to relate their experience in a way they had not done before. The following is an example of a student poem.

"Transformation"

I am water

I change depending on my surroundings

I have different personalities in different places.

Quiet among strangers,

Serious, eager to succeed,

Funny, comfortable among people.

*Silent like a pond,
Determined like waves striking on cliffs,
Comical like sprinklers.*

*Traveling all over the world,
I never stop,
never give up.
My flexibility perseveres when I encounter obstacles.*

*Different temperatures,
Different forms,
raging steam, vapor
anger released,
becoming calm fluid,
peaceful as a mountain lake,
sad cold ice,
reticent, emotionless.
Waiting for spring;
Sadness be gone.*

While this single case study cannot provide an overall analysis of outdoor educational programs, it can give insight to how programs similar to this can help ELL's become successful in the classroom. Incorporating experience with learning, writing, and reading will help a language learner acquire the necessary skills needed to successfully graduate high school.

Recommendations for Further Research

Additional research is needed in the area of field expeditions. Although this research pertained to academic and personal growth as a whole, the data was taken from

base camp with the exception of the Ropes Course at Project Discovery. The field experiences were an important part of this program. Each week the students would venture out into the wilderness for two or three days, learning survival and leadership skills. It would be very insightful if more research could be completed on this aspect of the ARC program.

Researcher's Experience

When conducting this research project, it was important for me to understand how this type of program enabled learners to carry over each experience into a writing activity that would help improve their overall academics. This is how the first hypothesis was developed (Developing a sense of self through outdoor education and integrated literacy instruction will lead to improved writing skills and intrinsic motivation to learn). The entire 6-week experience not only provided valuable insight and understanding of outdoor education but also a new awareness of individual growth. The onset of the 40-day course was basically focused around collecting and assessing the quantitative data, planning a schedule, and meeting with the instructors of the program. By the second week, I realized the importance of spending as much time at base camp with the students as possible. After meeting and talking individually with the eight students, I realized the importance of this life experience for them. During casual discussions and a formal interview, I learned the backgrounds of each individual. I developed an understanding of "where they were coming from." One student explained that he had only been in the United States for two years, and had recently lost 45 pounds and was concerned about gaining it back. Another student was anxious because of having to speak English only.

Students worried about being away from home for such a long time. As time passed and trust between the students and me grew, I saw myself relating to each individual. I wanted all of them to be successful but recognized the challenges they faced. I knew this program was unique when one student revealed to me that he felt good because he had just completed his first book ever and liked it!

It wouldn't have been possible to gain the insight and acceptance into the program without the help of the instructors, they spent 24 hours a day with the students and observed things I could not, they kept me aware of student challenges and successes throughout the program.

Each day I recorded the events and reflected on the attitudes and compassion that students developed for one another. It was clear that these individuals created a strong bond amongst themselves within a few weeks.

The overall experience was an amazing journey that allowed me to see first hand the importance of a literacy motivated outdoor educational program that focuses specifically on ELL's. A meaningful and challenging experience is key when understanding a new language.

References

- Beard, C., & Wilson, J. P. (2002). *The power of experiential learning: A handbook for trainers and educators*. Sterling, VA: Stylus.
- Brown, D. H. (2000). *Principles of language learning and teaching* (4th ed.). London: Pearson Education.
- Canfield, J., & Siccone, F. (1995). *101 ways to develop student self-esteem and responsibility*. Needham Heights, MA: Allyn and Bacon.
- Cross, R., Millard, N. M., & Dent, M. (2005). *Point release: Strategies for successful journal writing*. In *Proceedings of the 2005 Conference on Outdoor Leadership* (pp. 49-58), February 18-20, 2005, Estes Park, CO. Retrieved November 1, 2007, from http://www.weainfo.org/attachments/files/24/WEA_Proceedings_2005.pdf
- Gilbertson, K., Bates, T. Mclaughlin, T., & Ewert, A. (2006). *Outdoor education: Methods and strategies*. Champaign, IL: Human Kinetics.
- Neill, J. T. (2006). *Meta-analytic research on the outcomes of outdoor education*. Retrieved November 1, 2007, from <http://www.wilderdom.com/research/researchoutcomesmeta-analytic.htm>
- Nicolazzo, P. (2008, March 14). Structuring a learning experience. *Outdoor Ed*. Retrieved March 23, 2008, from <http://www.outdoored.com/articles/Article.aspx?ArticleID=201>
- The Regents of the University of California. (2003). *Adventure – risk – challenge: A Sagehen Creek Field Station outreach program*. Retrieved January 13, 2007, from <http://sagehen.ucnrs.org/arc/>

The Search Institute. (2007a). *Developmental assets profile*. Retrieved January 12, 2007,

from <http://www.search-institute.org/surveys/dap.html>

The Search Institute. (2007b). *What are developmental assets?* Retrieved January 12,

2007, from <http://www.search-institute.org/assets/>

Works Consulted

- Benson, P. L., Scales, P. C., Hamilton, S. F., & Sesma, A. (with Hong, K. L. & Roehlkepartain, E. C.). (2006). Positive youth development so far: Core hypotheses and their implications for policy and practice. *Insights and Evidence*, 3(1). Minneapolis, MN: Search Institute. Retrieved November 1, 2007, from <http://www.search-institute.org/research/Insights/InsightsEvidence-11-06.pdf>
- Martin, A., Franc, D., & Zounkova, D. (2004). *Outdoor and experiential learning: An holistic and creative approach to programme design*. Burlington, VT: Gower.
- Reed, E. S. (1996). *The necessity of experience*. Binghamton, NY: Vail-Ballou Press.
- Rickinson, M., Dillon, J., Teamey, K., Morris, M., Choi, M., Sanders, D. et al. (2004). *A review of research on outdoor learning*. Shrewsbury, UK: Field Studies Council.
- Scales, P. C., & Benson, P. L. (2006). Toward quality and equality: Fulfilling our promises to America's children and youth. *Insights & Evidence*, 3(2). Minneapolis, MN: Search Institute. Retrieved January 12, 2007, from <http://www.search-institute.org/research/Insights/IE-Dec06-APStudy.pdf>
- Scales, P. C., & Roehlkepartain, E. C. (2003). Boosting student achievement: New research on the power of developmental assets. *Insights & Evidence*, 1(1). Minneapolis, MN: Search Institute. Retrieved January 12, 2007, from <http://www.search-institute.org/research/Insights/IE-10-03-Achievement.pdf>
- Weil, S. W., & McGill, I. (1989). *Making sense of experiential learning: Diversity in theory and practice*. Philadelphia, PA: SRHE and Open University Press.

Appendix A: DAP

External Assets:

- I. Support – support from parents, family and other adults; a caring school environment.
- II. Empowerment – feeling safe at home, at school and in the neighborhood; feeling valued; and having useful jobs.
- III. Boundaries and Expectations – having good role models; clear rules at home and school; encouragement from parents and teachers.
- IV. Constructive Use of Time – participation in religious or spiritual activity; involvement in a sport, club, or group; creative activities; and quality time at home.

Internal Assets:

- V. Commitment to Learning – enjoys reading and learning; caring about school; doing homework; and being encouraged to try new things.
- VI. Positive Values – standing up for one’s beliefs; taking responsibility; avoiding alcohol, tobacco and drugs; valuing honesty; healthy behaviors; being encouraged to help others; and helping, respecting, and serving others.
- VII. Social Competencies – building friendships; properly expressing feelings; planning ahead; resisting negative peer

pressure; being sensitive to and accepting others; and resolving conflicts peacefully.

VIII. Positive Identity – optimism; locus of control; and self- esteem.

The DAP uses a four step response scale for all 58 items. Respondents are asked to check if the item is true: *not at all or rarely/ somewhat or sometimes/ very often/ extremely or almost always*. The responses are coded 0-1-2-3. The scale provides both frequency and intensity in order to accommodate different kinds of items. Another important aspect of the DAP in relation to the ARC program is the reading level. All eight participants of the 2008 summer program are second language learners and in order for the data to be compiled accurately it is necessary to know that each individual comprehends what is being asked. The DAP was designed to be easily read and understood by the vast majority of youth ages 11-18, the average reading level needed is at or below sixth grade, a few items are at the middle school level (p. 7)

A three-month time frame is suggested in order to detect meaningful changes and is recommended for repeated administration annually, semi-annually and quarterly. In relation to the ARC program the DAP is administered upon arrival, upon departure (40 days later) and again six months later. Since the ARC program is academically intensive and very self-reflective the DAP is considered a valuable tool in documenting and assessing growth within the time period allotted for the program.

Not all categories of the DAP were directly related to the ARC program or to the purposes of this study in understanding the benefits and effectiveness of this program in relation to each individual participant. It will be explained in the methodology chapter of

this research project that only one of the external assets (constructive use of time), and all four of the internal assets (commitment to learning, positive values, social competencies, and positive identities) were evaluated in a pre and post-program assessment.

Appendix B: The ARC Curriculum & the Students



The ARC Curriculum & The Students:

The curriculum for the Leadership and Literacy Summer Programs is a fusion of intensive academic base camp curriculum with a series of backcountry expeditions focused on leadership and self-sufficiency skills. Located in two sites, one in Santa Barbara County and one in the Lake Tahoe region, the course is called the ARC (Adventure, Risk and Challenge) Program. The “arc” provides a powerful image for students to imagine an arc in their learning and a bridge between their personal/ leadership growth with their academic skills. Students participate in a six-week intensive program away from home, receiving ten high school credits for their accomplished work during the summer. For our Truckee/ Tahoe Sagehen Program, we select eight to ten students first from a pool of interested students from local TTUSD high schools. Additionally, we accept a few students each year from the Bay area to add to our group dynamic and to expose local students to experiences outside this area. Students participate free of charge on scholarship donations provided by the local school district, community organizations and local companies. The students are graduated ninth and tenth graders (approximately 14-16 years old), and they are chosen as upper level English Language Learner and re-designated students, who desire academic help to transition successfully into mainstream high school classes. We target this group, in particular, because we believe these students, with our help, will be able to make the most substantial changes in their reading, speaking and writing. We also believe that helping these students work towards meeting grade level, graduating and going to college, will provide positive role models for their peers.

In this model, students have the chance to explore the region by backpacking, camping, participating in environmental service projects, and sea kayaking. Students also participate in adventure activities of ropes course work and rock climbing. By the end of the course, students are prepared to organize and execute their own four-day backcountry trip. In base camp, between each short (4-to 5 day) expedition, students participate in a rigorous Literacy curriculum to help raise their reading, writing and public speaking skills. This academic curriculum consists of three separate courses intertwined throughout the summer program, all with a focus on literacy skill growth and outcome based instruction. 1) Language Arts Curriculum 2) Science (Environmental, Studies and Science 3) Leadership and Physical Fitness.

Curricular Descriptions:

The Language Arts curriculum focuses on reading groups (reading out loud skills and confidence), vocabulary building, grammar goals, writing projects, peer sharing, and public speaking. Students complete three major writing assignments that are polished and published by the end of their program. Students read one book with their reading groups and one independent novel. With a 1-to 5 ratio of teachers to students, individual help, tutoring and encouragement is an additional benefit of this program. Curriculum is aligned with California State Standards, as well as local school district requirements for high school credits. This part of the course is designed and delivered by a credentialed English teacher. Students culminate with a public reading of their work during the final week of the program, as well as at their graduation ceremony.

The Science curriculum is organized around “place-based education” standards, introducing students to the natural world around them and to environmental conservation concepts. We partner with local environmental and community service organizations to connect our students to meaningful projects, and with UC field station scientists to connect our students with real science research. Students research, write and create interpretive bilingual displays for the field station or a local center. Their science learning culminates in an opportunity to teach Boys and Girls Club students about the natural world and guide students along their trail of interpretive signs. These projects are also integrated into the Language Arts curriculum, fueling writing assignments, as well as contributing to students’ leadership development.

The Leadership and Physical fitness curriculum is an ongoing, integrated focus of the entire summer program. Students participate in three to four expeditions (backpacking and sea kayaking), working on leadership skills in a structured manner. Each expedition requires a higher level of self- /group- sufficiency, culminating in a group independent expedition when students will in effect “lead” themselves and instructors will be present for emergencies only. During base camp periods, students participate in physical fitness activities, and they are responsible for measuring their own progress in running, sit-ups, push-ups and general endurance. Throughout the summer course, students are evaluated for their contribution as leaders to the student group. This section culminates in a final physical challenge event – a 7 to 10 mile run. Wilderness medicine is an integral part of the program feeding both the Leadership and Science curriculum, empowering students by teaching them about their bodies and how to treat illnesses and injuries in a wilderness setting. Science and leadership curriculum will also revolve around a health and nutrition focus, as students learn how to cook healthy food, how to plan menus, and how their bodies use and process food when they are physically active.

This is a general overview of the ARC curriculum. The objective of this curriculum is to integrate all the instruction in these separate disciplines into a cohesive learning experience. Students take a pre-test and post-test based on the CAHSEE for both evaluation and preparation purposes.

Curricular Objectives & California State Standards

Language Arts curriculum:

Objectives:

- Students will read *The Phantom Tollbooth*, by Norton Juster, out loud in small reading groups, working on reading and speaking fluency, as well as on structured vocabulary building. (Word Analysis, Fluency:1.0, 1.1, 1.2)
- Students will complete at least one independent reading book during the summer and will present their book to the class. Students will also read a selection of poetry and short stories, analyzing voice, speaker, author and reader roles.(Reading: 2.4, 3.3)
- Students will study grammar tools, and will have the opportunity to utilize new skills in their own writing. (Grammar and Mechanics of Writing 1.1- 1.3)
- Students will keep a journal, and will be expected to write regularly about the experiences they have in the program and in the wilderness.
- Students will study writing tools, and essay standards, and will review model writing in their English packets. (Writing Standards 1.2. 1.4, 1.6)
- Students will complete three polished writing assignments with multiple drafts, peer- editing and teacher feedback. Students will become familiar with writing as a process. (Writing Strategies 1.1, 1.2, 1.6, 1.9, Writing Applications 2.1, 2.3)
- Students will work on interviewing skills, and will complete a writing project based on their experience learning about another person. (Listening & Speaking: 1.0, 1.3, 1.9, 2.3, Speaking Applications: 2.3)
- Students will work on public speaking skills by sharing their own work with their peers. This part of the curriculum will culminate in a public reading of their writing pieces. (Listening & Speaking: 1.0, 1.9, 1.11)
- Students will be more prepared to pass the high school exit exam.
- Students will be more prepared to return to their high school classes and to pursue high school graduation and continuing education options.

Environmental Literacy & Science curriculum:

Objectives:

- Students will be trained in naturalist workshops about regional natural areas, watersheds, geology, the trees and plants in the area. This curriculum will be organized around “placed based education” standards, introducing students to the natural world around them and to environmental conservation concepts. We encourage students to begin to ask questions about the world around them.
- Students will work on creating an interpretive trail at Sagehen & Sedgwick Research Facilities, fueled by their own questions and interests in the geology, plants and trees, wildlife, and creek ecosystems of their base camp. In 2004 the overall theme was watershed health, and in 2005 the topic was forest health and

forest fire ecology, and in 2006 the topic was the Sagehen Forest, 2007- Watershed and Fens. In groups, students will research, take notes, and write the text for bilingual interpretive signs at UC Field Stations. (Writing Applications: 2.3, Writing Strategies 1.1, 1.2, 1.9)

- Students will prepare and teach naturalist workshops to students from the local Boys and Girls Club. This will be a culmination of the science curriculum. In stations, each student group will teach their research project and other activities to 6-10 Boys and Girls Club participants. Students will create station lesson plans, will manage the class with adult support, and will debrief the experience with teachers at the end of the project. (Listening and Speaking Standards LA: 1.3-,1.9)

Leadership and Physical Fitness curriculum:

Objectives:

- Students will participate in three to four expeditions (backpacking, and sea kayaking), working on leadership skills in a structured manner. Each expedition will require a higher level of self- /group- sufficiency, culminating in a group independent expedition when students will in effect “lead” themselves and instructors will be present for emergencies only.
- Students will participate in daily rotation of leadership roles and duties. Students will facilitate their own evening meetings to appreciate group members and experiences of the day.
- Students will participate in leadership evaluation from both peers and teachers throughout the summer.
- Students will participate in a Wilderness Medicine curriculum, learning about their own bodies and how to take care of themselves and each other in an emergency. Topics covered in this curriculum will include 1) hypothermia and cold injuries, 2) bee stings and anaphylaxis shock, 3) bleeding and wounds, 4) fractures and sprains, 5) spinal and head injuries, and 6) dehydration/ bacterial infections. Students will also learn CPR basics.
- Students will participate in a nutrition curriculum, learning how to cook healthy food in the wilderness, how to plan a menu and how important food is to a body’s ability to be physically fit.
- During base camp periods, students will participate in physical fitness activities, and they will be responsible for measuring their own progress. This will culminate in a final physical challenge event.
- Students will be responsible for charting their own growth, academic and personal transformations, and they will meet regularly one-on one with their teachers.
- Students will participate in a service learning curriculum that culminates in each of them picking local organizations and projects to volunteer with during the school year.

Testing Data- Student Tracking:

- Since 2004, our graduates have had between a 93%- 88% passing rate on the Language Arts section of the CAHSEE. Our group combines ELL, Re-designated (RFEP), Special Education, and Socio-economically disadvantaged student categories. We tutor students during the summer course, and again throughout the year to help them feel ready to pass the exam.
- In our pre-post testing each year, we have seen an average of approximately 8-12% improvement in skills in our students. Improvements have risen as much as 18% in 2004 and 2005 and 22% in 2006.
- Our graduates are enrolled in AP classes, elected high school sports and ROTC captains, and involved in local community organizations as leaders.

California State Trends

- We are inline with the California Children's Outdoor Bill of Rights signed by Arnold Schwarzenegger July 6, 2007. It provides that every child should have the opportunity to:
 - 1) Discover California's past
 - 2) Splash in the water
 - 3) Play in a safe place
 - 4) Camp under the stars
 - 5) Explore nature
 - 6) Learn to swim
 - 7) Play on a team
 - 8) Follow a trail
 - 9) Catch a fish
 - 10) Celebrate their heritage

Staff Information and Credentials

Katie Fesus Zanto
 ARC Director and Founder
 Assistant Professor of English Sierra Nevada College
 Masters in Education from Stanford University
 Clear California Teaching Credential in English with CLAD
 Teaching experience in EL population in TTUSD
 (530) 205-5649
klfesus@yahoo.com, Sagehen@berkeley.edu