THE EFFECT OF LIFT ON LIFE EFFECTIVENESS AND LOCUS OF CONTROL

A Dissertation

by

BRIAN MERRELL

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December 2009

Major Subject: Educational Administration

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Approved by:

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ABSTRACT

The Effect of LIFT on Life Effectiveness and Locus of Control. (December 2009)

Brian Merrell, B.A.; M.Ed., Texas A&M University

Chair of Advisory Committee: Dr. John Hoyle

The purpose of this study is to measure the effects of the Leadership Inspiration Facilitation Team (LIFT) program on the life effectiveness and locus of control of a group of sixth grade students at Schultz Middle School. The participants consisted of 36 sixth grade students, ages 10 to 12 years, from a single public middle school. The participants attended a two-day summer adventure-based ROPES camp.

The Review of Personal Effectiveness and Locus of Control (ROPELOC) instrument was administered at the beginning (pre-test), the end (post-test), and six months later (follow-up). The twelve domains of life effectiveness have been identified, including active involvement, cooperative teamwork, leadership ability, open thinking, quality seeking, self confidence, self efficacy, social effectiveness, stress management, time efficiency, coping with change, and overall effectiveness. Two domains of locus of control were identified: external and internal. Composite ROPELOC, subscale, and gender data were all analyzed using t-tests of independent samples.

The analysis showed no significant improvement in participants' composite ROPELOC score between the pre, post, and follow-up. However, there was an increase between the pre and post, although the increase was not at a significant level. Significant

increases in participants' scores were found in three of the 14 ROPELOC subscales: cooperative teamwork, coping with change, and external locus of control. Significance for cooperative teamwork was found between the pre-test and post-test. Significance for coping with change and external locus of control was found between the pre-test and follow-up, as well as between the post-test and follow-up using a significance of .05. Gender was found to have made no difference in composite ROPELOC scores. Participants in the LIFT summer program have increased self-perceptions of life effectiveness at the immediate conclusion of the program. The degree of significance has yet to be determined, and the length of significance is still in question. Researchers maintain that positive youth development is a complex myriad of interventions. Positive youth development has taken a proactive shift to promote healthy development outcomes for all youth, in addition to reducing long-term negative outcomes of at-risk youth and has emerged into its own as an independent field of study. In addition, positive youth development is resulting from the combination of several factors that lead to the development of more comprehensive models and the development of programs which address multiple behaviors and that involve families and community.

DEDICATION

      This dissertation is dedicated to my wife Crista. Thank you for helping me be who God designed me to be. I hope I'm returning the favor. I love you.

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CHAPTER I

INTRODUCTION

In recent years, there has been an increase in the use of challenge course programs and activities to aide in the development of adolescents. Low-element challenge courses activities have been used as interventions in clinical treatment facilities, as a treatment approach for adolescents with behavioral and social problems, as an approach to encourage personal growth, and as a method of team building (Johnson, 1992; Nassar-McMillan & Cashwell, 1997; Springett, 1987). During the 1980s and 1990s, significant growth in the adventure education field was apparent (Springett, 1987). From their early roots in Outward Bound and later refinements through Project Adventure, adventure-based cooperative learning programs have been used to transfer powerful teaching tools from non-traditional settings, such as summer camps and wilderness programs, to the more traditional settings of public school education programs.

Cooperative learning evolved through an experiential learning foundation pioneered by leaders such as John Dewey, Kurt Lewin, and Jean Piaget (Kolb, 1984). Adventure education developed through Kolb's Experiential Learning Cycle. Personal and social learning were key values that directed the experiential adventure curriculum (Bailey, 1999), which was founded on the premise that experiences alone do not teach

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This dissertation follows the style of *Theory to Action*.

without analysis or contemplation, which mirrored the traditional experiential learning process of action followed by reflection. As Kolb (1984) stated, an experience that is not reflected upon is unrealized learning. Following activities in adventure programs, the "processing session" (debriefing, group discussion, and analysis period) allowed learners to construct meaning through reflection. Critical reflection about the adventure experience was the key to development of the adventure programs and specific activities (Lewis & Williams, 1994).

Although educators agree that good sportsmanship and teaching of cooperative values are fundamental aspects of the adventure education curriculum, instruction which specifically allowed students to comprehend, utilize, and internalize cooperative value and concepts (Culhane, 2004) was seldom provided. Culhane (2004) stated that even with increased use of cooperative activities in education programs, there was limited evidence that demonstrated positive student outcomes within the domain of life effectiveness and locus of control of reinforcements because of participation in such activities.

Rotter (1966) theorized about loci of control and dual personality variable reinforcement. He stated that people, who perceive reinforcement as being out of their control and contingent upon others with greater control and power, or just because of fate, chance, or luck, possess external control beliefs or external locus of control. He also labeled individuals at the opposite end of the continuum, who view a reinforcing event as being under their own control and contingent upon their own behavior, as possessing an internal locus of control.

Culhane (2004) showed that education has responded to a need within our society to foster cooperative life effectiveness skills among students, which was further supported by the field of physical education and the National Association of Sport and Physical Education (NASPE). The National Association of Sport and Physical Education Executive Committee's (NASPE) last three of the seven national standards specifically addressed non-motor development (NASPE, 1995). Carnevale, Gainer, and Meltzer (1990) also observed in a national study that they conducted for the American Society for Training and Development on employability of youth in the 21st century, that communication skills (speaking and listening), adaptability skills (problem solving, thinking creatively), and group effectiveness skills (interpersonal skills, teamwork, and negotiation) were essential for success.

When adventure programs are coupled with experiential learning, negative youth behavior may be reduced in at least one of three ways (1) increasing participants' feelings of positive self-perception, (2) providing ways that adolescents can gain knowledge, skills, and abilities, or (3) increasing adolescents' understanding and knowledge of a positive peer culture and their ability to develop positive peer relationships and social skills (Hazelworth & Wilson, 1990; Schoel, Prouty, & Radcliffe, 1988). Research suggested that youths' outdoor, experiential participation was linked to increases in some of affective component of the self-perception constructs (Blascovich & Tomaka, 1991; Langsner & Anderson, 1987; Schoel et al. 1988). Students within adventure-based physical education programs were challenged to take greater

responsibility for their behaviors, respect all peers, and develop a greater appreciation for physical activity through cooperative learning methods (Culhane, 2004).

Positive Youth Development

Grown out of the concern to address negative issues, such as apathy, mis-communication, and fighting in society and schools, many traditional youth development programs have focused on prevention and intervention. It was unclear how effective these programs actually were because research on program effectiveness showed mixed results (Gambone, Klem, & Connell, 2002). While prevention and intervention programs have not disappeared, a recent paradigm shift has occurred in the way youth development programs are considered (Connell, Gambone, & Smith, 2000; Gambone et al., 2002; Irvy & Doolittle, 2003; Leffert, Benson, Scales, Sharma, Drake, & Blyth, 1998.). The phrase "problem free is not fully prepared" has come to symbolize the current movement toward a positive framework of youth development (Pittman, 2000). This proactive shift has focused on promoting healthy developmental outcomes for all youth, in addition to reducing long-term negative outcomes of at-risk youth and emerged into its own as an independent field of study known as Positive Youth Development (PYD).

As the field of Positive Youth Development has evolved and matured, an operational definition was developed by Catalano, Haggerty, Oesterie, Fleming, and Hawkins (2004) in order to help bring the field to consensus. According to the

researchers, positive youth development programs were approaches that sought to achieve one or more of the following objectives:

1. Foster belief in the future

2. Foster clear and positive identity

3. Foster pro-social norms

4. Foster resilience

5. Foster self-determination

6. Foster self-efficacy

7. Foster spirituality

8. Promote behavioral competence

9. Promote bonding

10. Promote cognitive competence

11. Promote emotional competence

12. Promote moral competence

13. Promote social competence

14. Provide opportunities for pro-social involvement

15. Provide recognition for positive behavior

The shift toward positive youth development took place in policy as well as theory and practice. Reflecting the shift, the Centers for Disease Control and Prevention (CDC) recently revised its "Goals for the 21st Century" to include positive youth development. The new goals aim to increase the number of adolescents who are

prepared to be healthy, safe, independent, and productive members of society (About CDC, 2006).

By some measures, the shift toward positive youth development is working. In New Hampshire, risky behaviors among adolescents have declined in many areas since data was first collected in 1993. The behaviors measured were related to the leading causes of mortality and morbidity among both youth and adults; this longitudinal study assessed how these risk behaviors have changed over time (New Hampshire Department of Education, 2007).

While measuring risky behaviors provided some insight into current trends, it did not speak to the effectiveness of positively oriented programs. In order to help overcome this obstacle, Benson and Saito (2001) contributed a conceptual framework to be applied to youth development theory and research. This framework was a useful tool for researchers because it took into account the context in which the theory was developed. The framework categorized inputs, which led to youths building developmental strengths, and ultimately resulted in promotion of short and long-term outcomes as researchers and practioners began to implement framework (Benson & Saito, 2001).

Many researchers believe structured out-of-school activities play a significant role in developing these assets among adolescents (Eccles, Barber, Stone, & Hunt, 2003; Hansen, Larson, & Dworkin, 2003; Larson, 2000; Mahoney, Eccles, & Larson, 2004; Roth & Brooks-Gunn, 2003). The benefits of structured leisure activities (versus unstructured activities such as watching television) included (a) acquiring and

practicing specific social, physical, and intellectual skills that may be useful in a wide variety of settings including school; (b) contributing to the well-being of one's community and developing a sense of agency as a member of one's community; (c) belonging to a socially recognized and valued group; (d) establishing supportive social networks of peers and adults that can help in both the present and the future; and (e) experiencing and dealing with challenges (Eccles et al., 2003).

Many of the benefits of structured leisure activities are congruent with the benefits believed to be achieved through participation in outdoor and adventure education programs. Researchers found a wide variety of benefits related to outdoor and adventure education programs. These include (a) increased self-concept measures such as self-esteem and self-confidence, (b) a more internalized locus of control, (c) development of pro-social behaviors, (d) spiritual growth, (e) moral reasoning, and (f) leadership and autonomy (American Camp Association [ACA], 2007; Cason & Gillis, 1994; Conrad & Hedin, 1981; Gass, 1990; Griffin, 2003; Hans, 2000; Hattie, Marsh, Neill, & Richards, 2003; Katy & Heesacker, 2003; Marsh, Richards, & Barnes, 1986; Moore & Russell, 2002; Newberry & Lindsay, 2000; Propst & Koester, 1998; Westervelt, Johnson, Westervelt, & Murrill, 1998). Because the researched outcomes of outdoor and adventure education programs were similar to those outcomes defined by youth development researchers (Lerner, Fisher, & Weinberg, 2000; Catalano et al., 2004), a theoretical link was found to exist between outdoor and adventure education programs and PYD programs.

Summer camps are one type of outdoor and adventure education program particularly well suited to facilitate development of characteristics that may lead to positive developmental outcomes, primarily due to their ability to reach large numbers of adolescents. Each year, more than 11 million children and adults are served by 12,000 camps (ACA, 2007), and some of these participants choose adventure-travel summer camps. This particular type of overnight summer camp makes use of multiple adventure activities such as bicycle touring, hiking, rock climbing, and whitewater kayaking. Marketing literature from the companies that run these camps frequently promote their ability to develop positive youth outcomes such as personal responsibility, leadership, self-confidence, group problem-solving skills, tolerance of differences, and communication skills (Broadreach, 2006; Longacre Expeditions, 2007). These claims are loosely based on research findings (ACA, 2007) and heavily based on anecdotal evidence and instinct (Hattie et al., 1997).

Review of Personal Effectiveness and Locus of Control: ROPELOC

Neill, Marsh, and Richards (2003) identified eight domains of life effectiveness and built the LEQ, Life Effectiveness Questionairre. The LEQ is a self report tool that measures changes in personal development as a result of an intervention program. These domains were based on the idea that people who are effective in their lives possess personal skills that help them achieve their desires or wishes in life. These eight domains were (a) time management, (b) social competence, (c) achievement motivation, (d) intellectual flexibility, (e) task leadership, (f) emotional control, (g)

active initiative, and (h) self-confidence. This model postulates that if these assets are developed more, then it is more likely that adolescents will be effective and successful.

Richards, Ellis, and Neill (2002) developed the ROPELOC instrument to study the effects of personal change problems. The instrument was developed on over 10,000 participants in a variety of settings. The ROPELOC instrument contained 14 scales, divided into five areas: (a) personal abilities and beliefs (self-confidence, self-efficacy, stress management, open thinking); (b) social abilities (social effectiveness, cooperative teamwork, leadership ability); (c) organizational skills (time management, quality seeking, coping with change); (d) energy scale (active involvement); and (e) a measure of overall effectiveness in all aspects of life. In addition, the ROPELOC measured internal locus of control (participants' tendencies to take responsibility for their actions and successes) and external locus of control (participants' tendencies to see external controls determining actions) (Richards et al., 2002).

Leadership Inspiration Facilitation Team: LIFT

Leadership Inspiration Facilitation Team (LIFT) is an adventure-based cooperative education student program grounded in the principles of experiential, outdoor, and adventure education. It seeks to utilize these frameworks to promote growth and development in students' life effectiveness, locus of control, and self-perception. LIFT was created in Cypress-Fairbanks ISD under the direction of Desi McKinney and Dr. Scott Poland in 2004 with its implementation at Arnold Middle School. Waller ISD later adopted the LIFT program in 2006.

Before starting LIFT, an introductory student meeting was held, followed by a parent meeting to discuss his/her/their student's participation in LIFT. If the students and parent(s) chose to participate, the students were invited to attend a free three-day summer experiential ROPES camp. The camp sessions and activities use an experiential adventure-based design. In addition to the summer ROPES camp, during the school year each student was kept with his or her summer LIFT group, including the facilitator, and enrolled in an advisory program that met for sixteen 30-minute sessions during the year. The advisory time and the summer camp included group relationship building activities, journaling, group discussions, and group processing. Group building included activities designed to promote and encourage trust, communication, self and social awareness, confidence, and skill development in the areas of teamwork, leadership, and problem solving. Rohnke and Butler (1995) provided many of the adventure activities and facilitation guidelines used during the year as part of a repertoire of activities selected for their group building qualities. Reflection and introspection were encouraged and facilitated by staff throughout the program.

In addition to the purported benefits of participating in an adventure-travel summer camp, many other facets of the experience made this type of structured, out-of-school activity well suited for promoting positive youth development. In these programs, high-risk or high-thrill activities are common. The perception of risk often created dissonance in the participant (Walsh & Golins, 1976), which created openness to change. Adventure-travel summer camps frequently used the naturally occurring group dynamics to help maintain a positive, safe, and supportive atmosphere. This

reliance on the group for success presented another opportunity for adolescents to develop effective life skills. (Priest & Gass, 2005).

Statement of the Problem

While results indicate that adventure-based programs are generally beneficial (Cason & Gillis, 1994; Hans, 2000; Hattie et al., 1997; Neill & Richards, 1998; Moote & Wodarski, 1997), it is also inherent that some programs were more effective than other programs were. Not all programs achieved measurable outcomes, and a general belief was that only some aspects of effective programs contribute to specific outcomes (Hattie et al., 1997). Research indicates that longer programs are generally more effective than shorter programs (Cason & Gillis, 1994; Hattie et al., 1997), but it is unlikely that length of program alone is responsible for differences in program effectiveness. Thus, how more effective programs differ from less effective ones was not clearly identified (Hans, 2000; Hastie, 1992; McKenzie, 2002; Meyer & Wenger, 1998; Neill & Richards, 1998).

Research on positive youth development, adventure/experiential learning, and outdoor education is prolific; however, specific research on camp programs is lacking, as is research on the effects, if any, on the students who participate in the camp programs. More information is needed to provide evidence that adventure programming in public schools is worthy of the time and effort required of educators to implement adventure activities in place of traditional activities that address sport skills or other student needs that are perceived to have a higher priority.

Purpose of the Study

The purpose of this study was to determine if participation in an adventure/experiential summer camp program called LIFT (Leadership Inspiration Facilitation Team), would influence the life effectiveness and locus of control of adolescents as measured by the ROPELOC (Review of Personal Effectiveness and Locus of Control) instrument (Neill et al., 2003).

Research Questions

The research questions this study addressed were related to composite ROPELOC scores, ROPELOC subscale scores, participant demographics, and length of program.

1. Composite ROPELOC

    a. Is there a significant difference in composite ROPELOC scores between preprogram scores and post-program scores?

    b. Is there a significant difference in composite ROPELOC scores between preprogram scores and six-month follow-up scores?

    c. Was there a significant difference in composite ROPELOC scores between post-program scores and six-month follow-up scores?

2. ROPELOC subscale domains

    a. Is there a significant difference in any of the 14 ROPELOC subscale scores between pre-program scores and post-program scores?

    b. Is there a significant difference in any of the 14 ROPELOC subscale scores between pre-program scores and six-month follow-up scores?

    c. Is there significant difference in any of the 14 ROPELO subscale scores between post-program scores and six-month follow-up scores?

3. Is there a difference in participants' composite ROPELOC scores between genders?

Operational Definitions

Several terms used throughout this study are defined in the following paragraphs.

Leadership Inspiration Facilitation Team (LIFT). This particular adventure-based cooperative education program sought to build, educate, and foster leadership skills in selected sixth grade students. The program consisted of a three-day summer ROPES camp where students completed various adventure activities and initiatives.

ROPELOC. For the purposes of this study, the ROPELOC (Review of Personal Effectiveness and Locus of Control) instrument was used to measure the differences for the 14 different subgroups listed below. The ROPELOC encompassed those skills found to be fundamentally important for individuals to be successful in all aspects of personal and professional life as they relate to experiential, outdoor, adventure education. The following list of terms from Richards et al. (2002) described the specific aspects of the ROPELOC explored in this study.

    a) Active Involvement occurs when a person uses actions and energy to make things happen.

b) Cooperative Teamwork occurs when individuals cooperate with each other in a team situation.

c) Coping with Change occurs when individuals learn to cope with different situations.

d) Leadership ability occurs when a person develops their capacities to lead..

e) Open thinking occurs when individuals learn to remain open and develop adaptability in thinking and ideas.

f) Self-confidence occurs when individuals put effort into achieving the best possible ability to be successful.

g) Self-efficacy occurs when individuals develop his/her ability to handle things and find solutions in difficult situations.

h) Social effectiveness occurs when an individual develop his/ her own competence and effectiveness in communicating and operating in social situations.

i) Stress management occurs when individuals develop his/ her self-control and calmness in stressful situations.

j) An individuals internal locus of control occurs when an individual takes internal responsibility for actions and success.

k) An individuals external locus of control occurs when an individual accepts that external issues control or determine success.

Assumptions

Due to the nature and design of the research, certain assumptions were made when conducting the research for this study. These included:

1. The researcher was impartial in collecting and analyzing the data.

2. Interpretation of the data collected accurately reflected the intent of the respondent.

3. The methodology proposed and described here offered the most logical and appropriate design for this particular research project.

4. All subjects provided honest and accurate information at all times and all subjects responded to the pretest and posttest to the best of their ability.

Limitations

All studies have limitations that pertain specifically to the data collected for the study. The limitations for this study included:

1. Findings of the study could not be generalized beyond any school that does not have LIFT.

2. This study was limited to information acquired from the literature review, interviews, and survey results.

3. Some students could benefit from the pretest/posttest design due to prior exposure to the test, which could artificially improve students' performance on the posttest.

4.   The sample size is small creating a difficulty in showing significant

differences.

5.   There is no control group to compare with the study group.

6.   The ROPELOC is a self-report instrument that relies on honesty and

accurate perceptions of self from the adolescent participants.

Methodology

Population

The study participants consisted of sixth grade students from Schultz Middle

School, Waller I.S.D., in Waller, TX. Thirty-six students were randomly selected to

participate in the study and invited to attend the camp. Schultz Middle School is a fifth

and sixth grade campus located north-west of Houston. At the time of the study, there

were 757 students enrolled in the school, with 401 students in the sixth grade. Schultz

Middle School is a Title I school.

Instrumentation

The Review of Personal Effectiveness and Locus of Control (ROPELOC)

instrument was designed to be a multidimensional tool to measure overall effectiveness

and locus of control after participation in an experience-based program. The instrument

consists of 14 scales, divided into seven areas:

1.   Self-confidence (SC), self-efficacy (SF), stress management (SM), and

open thinking (OT) measured personal abilities and beliefs.

2. Social effectiveness (SE), cooperative teamwork (CT), and leadership ability (LA) measured social abilities.

3. Time efficiency (TE), quality seeking (QS), and coping with change (CH) measured organizational skills.

4. Active involvement (AI) measured energy.

5. Overall effectiveness (OE) measured all aspects of life.

6. Internal locus of control (IL), measured a person's tendency to take responsibility for his/her actions, and external locus of control (EL), measured a person's perspective that external controls determine their actions.

7. Control items (CI) were administered in a pretest and posttest manner to account for an instrument effect.

Internal reliability (Cronbach's alpha) of these 14 subscales resulted in a range of .79 to .93, a mean of .85, and an overall alpha of .96 for the first trial sample (n=1,250). The second trial (n=1,475) had internal reliabilities that ranged between .71 and .90 with a mean of .83 for younger students aged 11 to 13 years old, and between .73 and .91 with a mean of .84 for older students aged 14 to 16 years old (Richards et al., 2002).

Exploratory factor analysis in the first trial sample produced average factor loadings ranging from .65 to .86 with an overall average of .75. In addition, a confirmatory factor analysis of this first trial resulted in a goodness of fit index (TLI) of .925. The second trial had an average factor loading of .67 to .90 with a goodness of fit

index of .94 (TLI) and .92 (GFI). In addition, the TLI index for the locus of control

scales alone resulted in an average of .97 (Richards et al., 2002).

Procedures

This study adhered to strict ethical guidelines concerning consent and

confidentiality. All participants were aware of the on-going study in such a way as not to

guide or influence their responses intentionally. A letter assuring subject confidentiality,

as well as a detailed explanation of the researcher's intent was sent to students and their

parents, and a parent's or guardian's signature was required for the student to participate

in the study. In addition, a detailed description and explanation of the study was filed

with Waller I.S.D for district approval to conduct research.

The ROPELOC was administered at the beginning and end of the three-day

summer camp, as well as at the end of the first semester. The students were administered

the instrument in their individual groups to ensure that a small number of students were

assessed together.

Data Analysis

The data was condensed into an Excel document and entered into a SAS

statistical analysis system package. Composite ROPELOC scores, subscale scores, and

gender were analyzed using paired t-tests.

Significance of Study

Hazelworth and Wilson (1990) suggested outdoor adventure programs were

vehicles for strengthening participants' social relationships and interpersonal skills;

however, Neill, Marsh, and Richards (2003) pointed out that every program and each participant may not experience such changes. In addition, there was a certain amount of uncertainty in adventure program evaluation, and if program impact carried to the participants' home environment. Pommier and Witt (1995) suggested changes that occur during experiential outdoor programs might not be sustained when the individual returned to his/her home environment. The nature of the experience was a small intervention in the course of a young person's life, and did not necessarily translate readily into measurable difference and concrete behaviors (Davis, Ray, & Sayles, 1995).

This study provided needed direction and justification for educational programs relative to the future uses of adventure-based cooperative activities. Presently, these activities in American public schools have been happen-stance and depend upon external factors such as the level of training of the facilitator, emphasis placed on teaching cooperative skills, and administrative support for the utilization of such activities. Concrete evidence demonstrating the effectiveness of adventure-based cooperative activities in public school programs supported its continued use or disuse.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter examines the literature related to positive youth developmental programs, the utilization of adventure/experiential education in youth programs, and the theoretical connections of these two programs to the potential life effectiveness and locus of control of students as measured by the Review of Personal Effectiveness and Locus of Control (ROPELOC). This chapter also investigates the impact of utilizing experiential activities in school leadership programs that can positively influence students' abilities to function effectively in leadership roles.

Positive Youth Developmental Programs

The literature clearly documents the struggles that take place physically, emotionally, and personally in the transition period of adolescence Erikson (1968) identifies a series of crises each person must face at each stage of life, with the goal during adolescence to develop a secure sense of identity. Anna Freud (1969) described adolescence as a period of upheaval -- emotionally, personally, and socially -- and stated that these changes in personality and character are often so dramatic that the picture of the former child evolves in to the newly emerging image of the adolescent. Osterrieth (1969) said that between the ages of about 11 and 15, a whole series of dramatic modifications will affect physical equilibrium, mental structure, the social and affective being, and how an individual views himself/herself and his/her environment.

This crisis model of adolescence, which evolved in the 1960s and 1970s, was built on widely accepted research based on both psychiatric and "normal" samples. Prior to the 1980s, many researchers, including Simmons, Rosenberg, and Rosenberg (1973), believed that adolescence was a time of turmoil. They found that between the ages of 12 and 13 there is an increase in self-consciousness, a lack of stability in self-image, and lower self-esteem than in children between the ages of 8 and 11.

In recent years, a more positive youth development movement has gained strength and this is reflected in the literature. It is based on the premise that youth/adolescents are not problems to be solved or fixed but resources to be developed. The emphasis of this new field is a strengths model instead of a deficit model, and encourages the development of specific strengths within all young people (Lerner, Dowling, & Anderson, 2003). This is an exciting time for both practitioners and scholars in the field as they begin to discover and contribute their findings and knowledge to the field. This new emerging field of positive youth development presents the challenge of enough time for research to support bringing together theory and practice. Unfortunately, this has resulted in relatively slow implementation of the positive youth development in youth programming (Zeldin, 2000).

As the field of positive youth development has evolved and matured, an operational definition was developed by Catalano et al. (2004) in order to help bring some common language and concepts to the field. According to the researchers, positive youth development programs are approaches that seek to achieve one or more of the following objectives:

1. Foster belief in the future

2. Foster clear and positive identity

3. Foster pro-social norms

4. Foster resilience

5. Foster self-determination

6. Foster self-efficacy

7. Foster spirituality

8. Promote behavioral competence

9. Promote bonding

10. Promote cognitive competence

11. Promote emotional competence

12. Promote moral competence

13. Promote social competence

14. Provide opportunities for pro-social involvement

15. Provide recognition for positive behavior

The shift toward positive youth development has taken place in policy, as well as theory and practice. Reflecting the shift, the Centers for Disease Control and Prevention (CDC) recently revised its "Goals for the 21st Century" to include positive youth development. The new goals aim to increase the number of adolescents who are prepared to be healthy, safe, independent, and productive members of society (About CDC, 2006).

The National Collaboration for Youth Members states their definition of positive

youth development as:

> A process which prepares young people to meet the challenges of
>
> adolescence and adulthood through a coordinated, progressive series of
>
> activities and experiences which help them to become socially, morally,
>
> emotionally, physically, and cognitively competent. Positive youth
>
> development addresses the broader developmental needs of youth, in
>
> contrast to deficit-based models, which focus solely on youth problems
>
> (National Assembly, 1994).

Consistently throughout the literature, the goal of positive youth development is

to provide opportunities for youth or adolescents to thrive. Thomsen (2004) identifies the

basic components of positive youth development as connection, confidence,

competence, comparison, and character. An adolescent is "thriving" if "he or she is

involved across time in a healthy positive relationship with his or her community and on

the path to idealized personhood (an adult state marked by making culturally valued

contributions to self, others and institutions)" (Lerner et al., 2003, p. 173).

Positive youth development can provide opportunities to guide youth to become

future leaders, contributing to others and their communities. A study by Zeldin (2000)

found that the indicators of positive development of a youth are empowerment and

exploration, competence and mastery, emotional health, compassion and generosity,

community connection and belonging, and civic participation -- all characteristics of

good leaders. Research supports the premise that good leaders understand leadership,

demonstrate leadership qualities, and have demonstrated those skills in life situations (Imada, Doyle, Brock, & Goddard, 2004).

According to Smith (2000), student leaders have good relationships with teachers, contribute to organizations, have diversity, engage in teamwork, understand themselves, can synthesize ideas, and can form good relations in schools or communities. There is an overlap of the values sought by positive youth development programs and findings about effective youth leaders (Smith).

The implementation of positive youth development calls for educators who work with youth fundamentally to shift the perspective from which they may view adolescents. To support this shift from the focus on youth as problems to be fixed to youth as resources, Brendito and Larson (2004) utilize the metaphor of the acorn to describe each child's unique potential and accurately portrays positive youth development's goal. Each child is given a seed for some unique strengths; the challenge for the child then is to realize fulfillment of this potential even through the struggles, problems, and difficulties that he or she may experience in his or her life. From this perspective, many of these problems develop when children's needs and potentials are ignored. Many of the problems youth exhibit may be solved by identifying the conditions that enable youth to achieve important life goals (Brendito & Larson).

With the belief system and practice of positive youth development, educators are challenged to look beyond the problem behavior that many adolescents exhibit and look for the unique strengths in youth and to provide opportunities for growth and development (Oman, Vesely, Aspy, McLeroy, Rodine, & Marshall, 2004). This

perspective asks educators to remember that youth are works in progress and that they are moving through a developmental process. Intentionally including young people in their own development will contribute to their empowerment and their recognition of their own leadership potential (Thomsen, 2004).

Over the last 30 years, there has been a significant increase in the number of prevention and positive youth development programs. The Positive Youth Development Project (Catalano, Berland, Ryan, Lonczak, & Hawkins, 1998) examined evaluations of positive youth development programs. Their review of over 25 published programs revealed several concerns evident in evaluating positive youth development programs. The first concern was the low rate of follow-up on existing program outcomes. Another issue addressed the diversity and type of measures used in the evaluations. The study determined that the field could benefit from the development and use of standardized measures applied to a measurement framework that assesses the whole child. Measuring predictors of risk and protective factors as well as positive and negative outcomes would promote understanding of the effects that positive youth development programs have on these outcomes. The need for proven evaluation methods in the field of positive youth development was a final concern. (Catalano et al., 1998, p. number left out).

Prevention and intervention programs have not disappeared. However, in recent years there has been a paradigm shift in the way youth development programs are considered (Catalano et al., 2004; Connell et al., 2000; Gambone et al., 2002; Irvy & Doolittle, 2003; Leffert et al., 1998). This proactive shift to a positive framework of youth development focuses on promoting healthy developmental outcomes for all youth,

in addition to reducing long-term negative outcomes of at-risk youth and has emerged

into its own as an independent field of study known as Positive Youth Development

(PYD). (Pittman, 2000).

There is some evidence that the shift toward positive youth development is

working. In New Hampshire, "risky behaviors" among adolescents have declined in

many areas since data was first collected in 1993 (New Hampshire Department of

Education, 2007). The behaviors measured are related to the leading causes of mortality

and morbidity among both youth and adults; this longitudinal study assesses how these

risk behaviors have changed over time. These figures are representative of the most

easily measurable variables related to youth's risky behaviors, but they fail to measure

outcomes of a more positive nature.

While measuring risky behaviors does provide some insight into current trends, it

fails to address the effectiveness of positively oriented programs. In order to help

overcome this obstacle, Benson and Saito (2001) contributed a conceptual framework to

be applied to youth development theory and research. This framework can be a useful

tool for researchers as it takes into account the context in which the theory was

developed, and categorizes inputs that lead to youths building developmental strengths,

ultimately resulting in promotion of short and long-term outcomes.

Several models have been developed from various elements of positive youth

development and are being implemented into programming (Brendito & Larson, 2004;

Gibbs, 2003; Kelley, 2004; Larson, Moneta, Richards, & Wilson, 2002; Lerner et al.,

2003; Mahoney & Lafferty, 2003; Pollack, 2004; Quigley, 2004). Past research on the

preventative models revealed links between certain types of behavior and outcomes, but much of this research focused on negative behaviors and deficits (Flay, 2002). The field of positive youth development reversed this trend by identifying positive behaviors and then using them as factors that predict positive youth development (Mahoney & Lafferty). Research on the measurement and evaluation of behavior has contributed to models of positive youth development (Mahoney & Lafferty, 2003).

Positive youth development is seen as resulting from the combination of several factors that led to the development of more comprehensive models and the development of programs that address multiple behaviors and involve families and community (Flay, 2002). This approach challenges researchers to take into consideration cultural, political, social, and even historical forces when studying positive youth development (Swanson, Spencer, Dell'Angelo, Harpalani, & Spencer, 2002).

Several positive youth development models and programs focus on identity formation, character education, healthy lifestyles, and social emotional learning (Flay, 2002). Some programs emphasize the link between personal development and academic achievement (Flay). Because current models on positive youth development differ, both in theory and practice, several different approaches are emerging. Some of these approaches include measuring developmental assets, outlining the notion of "thriving" and determining whether or not a youth is living up to the identified elements of thriving, describing what a positive family or community looks like, and working toward specific goals. "Health realization" is a relatively new conceptualization that is being utilized as a basis for positive youth development programming (Kelley, 2004).

Neill et al. (2003) have identified eight domains of life effectiveness that reinforce the idea that people who are effective in their lives have personal skills that assist in achieving their desired outcomes. These eight domains are (a) time management, (b) social competence, (c) achievement motivation, (d) intellectual flexibility, (e) task leadership, (f) emotional control, (g) active initiative, and (h) self-confidence. This model is built on the assumption that the greater the development of these assets, the more likely it is that adolescents will be effective and successful (Neill et al, 2003).

Many researchers believe structured out-of-school activities play a significant role in developing assets among adolescents (Eccles, Barber, Stone, & Hunt, 2003; Hansen, Larson, & Dworkin, 2003; Larson, 2000; Mahoney, Eccles, & Larson, 2004; Roth & Brooks-Gunn, 2003). The benefits of structured leisure activities (versus unstructured activities such as watching television) include the following opportunities:

> (a) acquiring and practicing specific social, physical, and intellectual skills that may be useful in a wide variety of settings including school; (b) contributing to the well-being of one's community and developing a sense of agency as a member of one's community; (c) belonging to a socially recognized and valued group; (d) establishing supportive social networks of peers and adults that can help in both the present and the future; and (e) experiencing and dealing with challenges (Eccles et al., 2003, p. 866).

Adventure/Experiential Education Programs

Many of the benefits of structured leisure activities are aligned with those believed to be achieved through participation in outdoor and adventure education programs and that reinforce the skills advocated by the positive youth programs. Researchers have found a wide variety of benefits related to outdoor and adventure education programs. These include (a) increased self-concept measures such as self-esteem and self-confidence, (b) a more internalized locus of control, (c) development of pro-social behaviors, (d) spiritual growth, (e) moral reasoning, and (f) leadership and autonomy (American Camp Association [ACA], 2007; Cason & Gillis, 1994; Conrad & Hedin, 1981; Gass, 1990; Griffin, 2003;Hans, 2000; Hattie et al., 1997; Katy & Heesacker, 2003; Marsh et al., 1986; Moore & Russell, 2002; Newberry & Lindsay, 2000; Propst & Koester, 1998; Westervelt et al., 1998). Because many of the outcomes of adventure/experiential education programs are similar to those outcomes defined by positive youth development researchers (Lerner et al., 2000; Catalano et al., 2004), the rationale for the link between adventure/experiential education programs and positive youth programs is strong.

The foundation of adventure/experiential education can be traced back to Dr. Kurt Hahn who founded Outward Bound in Europe in the 1930s to meet the growing social needs of youth. Hahn noticed declines within society, which included declining initiative, imagination, self-discipline, and compassion (Richards, 1999).

Through the Outward Bound program, Hahn developed an outdoor wilderness program that directly addressed societal concerns. The major difficulties of this program

were the lack of equipment, limited availability to the average person, and the requirement of specialized environments for many of the activities in the program. In a later attempt, Project Adventure was developed in the 1970s to make many of these activities more available to the general populous (Prouty, 1999).

Hahn's philosophy revolved around the premise that students could begin to realize their true potential by exposing them to experiences that would enable them to discover these capacities within themselves. The development of these outdoor experiences was based on the fundamental ideas that the experience (a) takes place outdoors, (b) is structured to assist individuals to discover and realize their inner resources, (c) is designed to reflect the environment in which the participant is expected to operate, and (d) is based on adventure activities that are inherently dangerous and deemed appropriate for meeting the first three objectives (Irvine and Wilson, 1994). Project Adventure modified, manipulated, and adapted many of the activities that were popular in the Outward Bound programs in the hopes of making these activities appropriate to the public school environment and more assessable. A result of this transition was the creation of many resources that describe specific activities, provide instructions on how to properly facilitate certain activities, and include information about a growing number of program models that use these activities (Hellison, 1989; Orlick, 1982; Rohnke, 1984, 1989, 1991, 1994; Rohnke & Butler, 1995; Sobel, 1983).

The adventure/experiential education model evolved in to into an experientially based approach of utilizing cooperative physical activities (Newton, Sandberg, & Watson, 2001). Adventure/experiential education yields a more dynamic and

unpredictable experience for instructors and students, unlike more traditional education models in which specific and predetermined outcomes are expected.

Adventure/experiential learning is an active process. It involves placing the learner in unfamiliar environments, outside his/her comfort zone, and into a state of dissonance (Gass, 1993). In order to learn in this state of disharmony, students are required to use problem-solving skills and self-examination skills. Studies show that although the effects of learning in this environment are significant, the process is the most vital component (Kolb, 1984). The challenging experiences drive participants out of their comfort zones and push their personal limits. The anticipated result is personal growth and changes in the participant's self-esteem. The primary objective of experiential learning and outdoor education is that the individual grows through reflection.

Schoel et al. (1988) found that adventure-based programs could improve the self-concept of participants by building trust in others and in oneself themselves. As the participants move through a sequence of trust exercises, games, and problem-solving experiences, they build trust within the group and themselves as they work together to accomplish group and personal goals. This progression of events allows the participants to set goals and receive feedback on their goals. Feedback is given and performance is reviewed, allowing the establishment of new plans for an improved performance. Schoel et al. label this pattern of experiences "the adventure wave." In effective outdoor programs, it is compared to a wave with a series of peaks and valleys bringing with it periods of turbulence, excitement, activity, and calm (Schoel, Prouty, & Radcliff, 1988).

Hans (2000) identified two significant influences on control outcomes of experiential learning. First, programs that had therapeutic goals as their primary purpose had higher effect sizes than programs with recreation goals. This discovery is in line with the findings of P. E. Marsh (1999) that camps with a self-development philosophy achieved a reasonably high effect size while camps without such a philosophy had insignificant differences in changes of effect in participants. The second significant finding from Hans was that residential and semi-residential programs that utilized adventure activities were more effective than session programs that did not take participants away.

Prior research gave evidence to suggest that adventure education experiences can make a positive impact on young people's attitudes, beliefs, and self-perceptions. Examples of personal growth outcomes include confidence, self-esteem, self-efficacy, and personal effectiveness. Self-esteem, critical to the social and psychological development of a child, is responsible for determining how individuals will approach life and interact with others. Self-esteem refers to how individuals feel about themselves and how they expect to be accepted and valued by others who are important to them. According to Bean (1992), four conditions must be present for fostering a positive self-esteem: (1) connectedness to a group, (2) ability to express oneself, (3) a sense of power when recognizing ability to do a task otherwise thought impossible, and (4) having a set of values from which one can set his/her own goals and ideals. Bartz and Matthews (2001) listed examples of practices that can improve students' self-esteem: (a) students work in groups (cooperative learning) under a teacher's guidance; (b) teachers use

learning activities for which students receive feedback noting success because this builds confidence; (c) teachers help students identify strengths and resources and consider how to use them to achieve personal goals; (d) teachers emphasize reinforcement for good performance and de-emphasize penalties for poor performance; and (e) teachers emphasize the relationship between success in school and success in life outside of the classroom.

Schoel et al. (1988) recommended a multidimensional perspective make-up of the adventure curriculum. Involved in this perspective are the dimensions of the doing (behavior), the thinking (cognition), and the feeling (affect) of human experience. In each of these domains, there exist different and succinct theoretical perspectives.

The behaviorists view the activities or stimuli as a means to reinforce positive or negative behaviors. Bandura (1977), a social-learning practitioner who supports behaviorists' perspectives of learned experience, emphasized modeling, imitation, and reinforcement as the potential forces in the learning of new behaviors. The group is the important change agent through the process of aligning the cognitive, emotional, and physical resources to generate novel responses to problems (Schoel et al., 1988).

Cognitive psychologists are interested in how the external world is represented in people's minds. People are viewed as being complex; they intentionally and thoughtfully organize their world in solving problems. The group defines the rules, makes plans, and develops strategies in order to solve experimental and real life problems (Schoel et al., 1988).

The affective experience is the third part of adventure education. Following the views of Maslow's Basic Needs concept, individuals strive to attain safety, love, and self-esteem from human experiences. Incorporated within adventure education are components that allow all three of these domains to be fulfilled simultaneously (Schoel et al., 1988).

David Kolb (1984) designed a 4-stage model that has become the framework for the development of adventure education. Kolb describes the process of learning through direct experience as experience, critical reflection of the learning event, abstract conceptualization, and active experimentation (Neill, Marsh, & Richards, 2003). Personal and social learning are key values that direct the experiential adventure curriculum (Bailey, 1999). Experiential adventure curriculum is founded on the premise that experiences themselves do not teach without analysis or contemplation, which mirrors the traditional experiential learning process of action followed by reflection. As Kolb stated, an experience that is not reflected upon is unrealized learning. Following activities in adventure programs, the "processing session" (debriefing, group discussion, and analysis period) allows learners to construct meaning through reflection. Critical reflection about the adventure experience is the key to development (Lewis & Williams, 1994).

Summer camps are one type of outdoor and adventure education program particularly well suited to facilitate development of characteristics that may lead to positive youth developmental outcomes, primarily due to their ability to reach large numbers of adolescents. Each year, more than 11 million children and adults are served

by 12,000 camps (ACA, 2007) and some of these participants choose adventure-travel summer camps. This particular type of overnight summer camp makes use of multiple adventure activities such as bicycle touring, hiking, rock climbing, and whitewater kayaking. Marketing literature from these companies frequently promotes their ability to develop positive youth outcomes such as personal responsibility, leadership, self-confidence, group problem-solving skills, tolerance of differences, and communication skills. (Broadreach, 2006; Longacre Expeditions, 2007). These claims are loosely based on research findings (ACA, 2007) and heavily based on anecdotal evidence and instinct (Hattie et al., 1997).

In addition to the reported benefits of participating in an adventure-travel summer camp, there are many experiences that do make this type of structured, out-of-school activity well suited for promoting positive youth development. In these programs, high-risk or high-thrill activities are common. The perception of risk often creates dissonance in the participant (Walsh & Golins, 1976), which can create openness to change. Adventure-travel summer camps frequently use structured group dynamics to help maintain a positive, safe, and supportive atmosphere. This reliance on the group for success presents another opportunity for adolescents to develop effective life skills. (Priest & Gass, 2005).

ROPES courses, which have been around since the early 1970s, are some of the more popular experiential program models. In a recent study by Bailey and Spoto (2005), it was found that the high (belayed) and low (non-belayed) ROPES course activities built teamwork, confidence in oneself, and confidence in the group for this

particular group of teens. Corporations and organizations around the world began utilizing ROPES courses in the early 1980s as a means of motivating employees and increasing productivity. Their basic purpose was and still is to offer an educational method that results in increased self-esteem, awareness, motivation, self-value, problem-solving abilities, communication skills, conflict resolution, leadership abilities, and increased moral for individuals.

Haras and Bunting (2005) recently studied the concept of creating meaningful experiences for ROPES participants. This study found that participant experiences of meaningful involvement are affected by program design and delivery attributes. To create ROPES course programs that increase opportunities for meaningful involvement, practitioners should (a) ensure that all activities include challenge, uncertainty, risk, novelty, and fun, and (b) allow participants to self-select roles that contribute to the activity's central task and are congruent with the participant's skill level and abilities.

The aim of the ROPES course is to heighten and expand self-awareness using focused physical and emotional experiences; these courses have a high degree of facilitator improvisation (Haras & Bunting, 2005). Blanchard (1993) maintains that an essential component of experiential group learning is processing the experience of each member and interactions among members to provide an opportunity for personal growth and change.

Evaluation of Adventure/Experiential Education Programs

on Personal Effectiveness and Locus of Control

There has been an evolution of the studies through the years as researchers strive to determine the effectiveness of adventure/experiential education programs on the development of identified skills in youth. Two areas of focus that are significant to the area of this study are the evaluation of personal effectiveness and the locus of control as measured by the Report of Personal Effectiveness and Locus of Control (ROPELOC) instrument.

Early exploration of locus of control of reinforcement concepts was provided by Rotter (1966). Rotter theorized that reinforcements or rewards are perceived (reaction) differently by individuals depending on their unique perspective upon these external forces. One of the determinants of this reaction is how the individual perceives that reward follows from, or is contingent upon, his own behavior or attributes, versus whether he feels rewards are controlled by outside forces and may occur independently of his own actions. (Rotter, p. 1)

Rotter (1966) theorized that when a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is perceived as the result of luck, chance, or under the control of powerful others. This point of view of reinforcements was termed as external control, or external locus of control. However, when a person perceives that the event is contingent upon his own behavior or her own relatively permanent characteristics, it is expressed as being an internal control, or internal locus of control (Rotter).

Two main limitations of the locus of control concept arose from Rotter's studies. The first centered on the characteristics of college students and adults, in particular males, who have become more external as a defense against failure but who were originally highly competitive. These individuals still display internal behaviors in competitive situations, but revert to external views to account for failures (Rotter, 1966). The other limitation is the concept of specificity in that internal and external control attitudes are not generalized across the board, and in highly structured academic environments, there are perhaps a higher specificity determining responses. Concerning younger individuals who have less experience in competitive academic situations, a higher relationship could be anticipated (Rotter).

A study completed by Hattie et al. (1997) involved a meta-analysis assessment co-authored by Neill, one of the instrumental authors in creating the ROPELOC assessment tool. The meta-analysis utilized 96 studies published between 1968 and 1994, with 1,728 effect sizes. These studies were placed into six categories by outcomes measured: leadership, self-concept, academic, personality, interpersonal, and adventuresomeness.

The overall meta-analysis effects size from all of these various adventure programs was .34. Hattie et al. (1997) compared this to some of their prior research in classroom-based education programs, which resulted in effect sizes of .40 for achievement and .28 for affective outcomes. It was concluded that the .34 effect size for the adventure programs is comparable to results found in other education programs.

Within the domain of self-concept, there were higher results found among adventure education programs (.26) than in classroom-based education programs (.19).

Hattie et al. (1997) found some of the adventure programs were effective in creating positive outcomes and probably only parts of those effective programs can be attributed to the actual growth measured. Among the variables found to have the greatest effects were those associated with self-control. These included independence (.47), confidence (.33), self-efficacy (.31), self-understanding (.34), assertiveness (.42), internal locus of control (.30), and decision-making (.47). The authors felt that these outcomes directly relate to a sense of control over and regulation of the self, responsibility, or an assurance of self among the participants. Overall, this study provides additional support for the use of adventure programs in effecting positive change in participants and for continuing research efforts to understand better the full impact of adventure programming.

A study by Eagle, Gordon, and Lewis (2002) has a close relationship with this study because of the similarities of the instrumentation used. This study compared the effects of a multiple one-day and a one-day adventure experience intervention program on life effectiveness. This study utilized the Life Effectiveness Questionnaire (LEQ-H) instrument (Neill et al., 1997) with the following subscales: achievement motivation, active initiative, emotional control, intellectual flexibility, self-confidence, social competence, task leadership, and time management. The LEQ was the foundation instrument that the authors used in developing the Review of Personal Effectiveness and Locus of Control (ROPELOC) instrument was used in this study, and many similarities

can be seen between these two instruments. The intervention program used in the study was called Beyond the Limits and is based on a combination of ROPES course and classroom activities. Because of the expanding use of this program, the authors wanted to analyze the difference in life effectiveness traits between the one-day only programs they offer and the multiple one-day programs (Eagle et al.).

The results of this study revealed a significant effect for those students who had multiple experiences with the intervention program. The variables of time management, task leadership, and emotional control were found to be significant in those participants who had prior experience with the Beyond the Limits program. These results would support the use of a multiple day program that would positive growth in the area of life effectiveness. In addition, when comparing pretest scores of the first time participants with the participants having prior experience with this specific intervention program, five of the eight subscales (social competence, achievement motivation, intellectual flexibility, task leadership, and active initiative) resulted in significant effects favoring the use of multiple day interventions.

Eagle et al. (2000) conducted a study to determine the effects of a one-day adventure program. The study was part of the Beyond the Limits program, which is an outdoor adventure education program that utilizes a challenging ROPES course and experiential activities. The purpose of the research was to confirm the effectiveness of the one-day adventure program and multiple one-day experiences. The Life Effectiveness Questionnaire (LEQ-H) instrument was used for evaluative purposes. Effectiveness was determined through data gathered showing significant improvement

on a pretest and posttest. The findings gave affirming results and thus it was concluded that the one-day intervention had an impact on participants' development in general.

The locus of control study with the most relevance to this study involves a meta-analysis of the effects of various adventure education programs on locus of control (Hans, 2000). The author theorized that many adventure education studies with self-concept variables are too broad for careful analysis. Within the self-concept variable, a common link exists to the concept of locus of control for which positive growth has been measured.

Hans (2000) also felt it important to establish a clear understanding of adventure programming and adventure therapy with the connection to experiential education, similar to this study. Adventure programming incorporates the philosophy of experiential education, when participants are placed into real life situations in which they need to employ problem solving or otherwise creative methods to deal with the environment around them and the task. Adventure therapy incorporates experiential learning with a close integration of its psychological theories into an educational delivery program (Hans). Twenty-four studies were utilized within this meta-analysis involving 1,632 subjects. The result was a total effect size of 0.38 with an overall homogeneous effect throughout all of the studies; all of the studies essentially measured the same effects.

The results of the Hans (2000) meta-analysis also revealed that regardless of the characteristics of a study and the delivery method (adventure programming, adventure therapy, outdoor education, or outdoor adventure education), a shift towards internality

of locus of control was an outcome. However, the daily duration of programming (e.g., residential, outpatient, or a mix) and the program goals (e.g., recreation, public education, or adjunctive therapy) are key areas of study that could yield important findings on the impact of such a program on participants' locus of control (Hans). One of the recommendations provided by Hans for future research was the need for a more multidimensional locus of control assessment instrument, which could investigate further the constructs that make up internal and external locus of control.

A number of studies focus on the question of whether there are long-term influences on the self-awareness and/or self-assurance of people who complete these experientially based programs (Hans, 2000). The authors discuss many of the constructs used to identify individuals (such as self-esteem, self-concept, and self-perception). They preface Harter's (1988) definition of self-concept that identifies nine different domains: scholastic competence, athletic competence, physical appearance, social acceptance, behavioral conduct, job competence, close friendship, romantic appeal, and global self-worth. This model appears to be one of the universally accepted measures of adolescent self-concept. The study involved a three-day outdoor adventure trip with 58 urban adolescents ~~that~~ who were labeled "at risk." The ethnic diversity included 18 Hispanics, 13 African-Americans, five Native Americans, and five biracial participants. At the end of the experience, leaders were asked to document self-perception ratings for each participant and subsequently select the three participants with the lowest average score and the three with the highest average score. These participants participated in post interviews where the topic of the influence of outdoor adventures on self-perception and

behavioral changes were explored. A Self-Perception Profile for Adolescents (SPP) was used as the quantitative instrument because of its high reliability. The conclusion showed that participant's social acceptance and behavioral conduct improved after program completion. The results also indicated a positive impact on self-perception due to the outdoor adventure.

Forgan and Jones (2002) addressed the use of adventure-based cooperative activities in a study similar to the present study and looked at areas of personal effectiveness. They used cooperative activities with a population of at-risk students with behavior disorders, different from the populations of fifth graders used in this study. The goal of the intervention was to observe the effects of utilizing a cooperative adventure curriculum, designed by Project Adventure, on student social skill behaviors.

Limitations of the study, consistent with other studies in this area, are found in the data collection methods. The data collected focused on the incidence of time-outs given to students prior to and during the intervention program. There was a significant decrease in time-outs given to each of the four students between the four months prior to the intervention and the five months during the intervention. Daily point scores were also collected though it was unclear exactly what these scores represented. The results of these daily point scores were also favorable with noticeable improvements during the intervention program. Other limitations of this study were its small sample size, data collection methods, and lack of statistical analysis methods used.

A study by Tan (2005) focused on a group of Outward Bound Singapore participants from two different and independent secondary schools. Specifically, the

students were classified as Secondary 3 level of education. The purpose of the study was to determine and further investigate the effects of the Outward Bound (OB) program on the participants. Data was collected for this study using the Life Effectiveness Questionnaire, LEQ. The test instrument was administered before the OB experience, immediately after the OB experience, 3 months after the OB experience, and 9 months after the OB experience. Results for each LEQ were entered into a spreadsheet and analyzed using the Statistical Package for the Social Sciences (SPSS). The researcher ran normality tests, descriptive statistic tests, ANOVA (repeated measures analysis of variance tests), and follow-up/post hoc t tests. There was significant difference in the participants in the OB Singapore sample group's mean LEQ scores. The most drastic difference in scores showed a steep increase in LEQ scores from pre-test to immediately post-test. The study showed that the scores were at a maintenance level from the post-test period to the three-month test period. Still, the test instrument scores were higher at the three-month test period than they were at the pre-test. The scores between the three-month test and the nine-month test showed a slight drop, but the scores at the nine-month scores were still higher than the pre-test scores. Differences were accounted for in all eight areas of the LEQ. The subtest with the least significant difference is Time Management. The study shows that at the three-month test, there is significant difference in the Social Competence, Task Leadership, Emotional Control, Active Initiative, and Self Confidence subtests. At the nine-month follow up test, the Task Leadership, Active Initiative, and Self Confidence and Emotional Control subtests were still significantly high. The tests showing no significant difference at the nine-month test period were

Time Management, Social Competence, Achievement Motivation, and Intellectual

Flexibility. One finding was that the LEQ results for the female participants were higher

than the male participants' scores for all test periods. The data collected from the

females indicated more stability over the post-test, three-month, and nine-month test

periods than the scores of the male participants. The data gathered from the study shows

that OB Singapore had a positive lasting effect on participants' life effectiveness as

assessed by the Life Effectiveness Questionnaire.

Review of Personal Effectiveness and Locus of Control (ROPELOC) Instrument

Richards, Ellis, and Neill (2002) developed the ROPELOC instrument to study

the effects of personal change problems. The instrument was developed from studies of

over 10,000 participants in a variety of settings. The ROPELOC instrument contains 14

scales; personal abilities and beliefs (Self-Confidence, Self-Efficacy, Stress

Management, Open thinking), social abilities (Social Effectiveness, Cooperative

Teamwork, Leadership Ability), organizational skills (Time Management, Quality

Seeking, Coping with Change), and energy scale (Active Involvement) and a measure of

overall effectiveness in all aspects of life. In addition, the ROPELOC has measure the

person's tendency to take responsibility for his/her actions and successes, internal locus

of control, or to see external controls determining actions, external locus of control

(Richards et al.).

The ROPELOC in the first trial sample (n = 1250) had internal reliabilities

(Cronbach alpha) for its 14 subscales of between .79 and .93 and an average internal

reliability of .849 (Richards et al., 2002). This compares with the established stalwarts,

such as the Coppersmith Self-Esteem Inventory, average Cronbach alpha of .75 (Ahmed,

Valliant, & Swindle, 1985), the Rosenberg Scale's average alpha of .77 (Kokenes,

1978), and the Self Description Questionnaire I (Marsh, Richards, & Barnes, 1986), with

its alphas from .80 to .92 for the seven subscales. In the second trial sample, the

reliabilities were very similar overall; however, generally, reliability estimates were

somewhat higher for Year 10/11 students (median = .86) than Year 7 students (median =

.83) (Richards et al.).

CHAPTER III

METHODOLOGY

Introduction

This chapter describes the process and procedures used to conduct this study. Chapter III has been divided into eight sections consisting of the research questions, specific hypotheses, research design, sampling, intervention, instrumentation, data collection, and data analysis.

Purpose

The purpose of this study is to measure the effects of Leadership Inspiration Facilitation Team (LIFT) on the life effectiveness and locus of control of a group of fifth grade students at Schultz Middle School. Specifically, the following subscales of life effectiveness and locus of control were analyzed in this study: active involvement, cooperative teamwork, leadership ability, open thinking, quality seeking, self-confidence, self-efficacy, social effectiveness, stress management, time efficiency, coping with change, overall effectiveness, internal locus of control, and external locus of control.

Research Questions

The research questions this study addressed were related to composite ROPELOC scores, ROPELOC subscale scores, and participant demographics,.

1.   Composite ROPELOC

    a. Is there a significant difference in composite ROPELOC scores between preprogram scores and post-program scores?

    b. Is there a significant difference in composite ROPELOC scores between preprogram scores and six-month follow-up scores?

    c. Was there a significant difference in composite ROPELOC scores between post-program scores and six-month follow-up scores?

2.   ROPELOC subscale domains

    a. Is there a significant difference in any of the 14 ROPELOC subscale scores between pre-program scores and post-program scores?

    b. Is there a significant difference in any of the 14 ROPELOC subscale scores between pre-program scores and six-month follow-up scores?

    c. Is there significant difference in any of the 14 ROPELO subscale scores between post-program scores and six-month follow-up scores?

3.   Is there a difference in participants' composite ROPELOC scores between genders?

Specific Hypotheses

The following hypotheses are related to the research questions.

1) Composite ROPELOC scores

    a) H_O: There is no difference between pre-program and post-program composite ROPELOC scores.

H_a: There is a difference between pre-program and post-program composite ROPELOC scores.

b) H_O: There is no difference between pre-program and six-month follow-up composite ROPELOC scores.

H_a: There is a difference between pre-program and six-month follow-up composite ROPELOC scores.

c) H_O: There is no difference between post-program and six-month follow-up composite ROPELOC scores.

H_a: There is a difference between post-program and six-month follow-up composite ROPELOC scores.

2) ROPELOC subscale domains

a) H_O: There are no differences between pre-program and post-program scores in each of the 14 ROPELOC subscale domains.

H_a: There are differences between pre-program and post-program scores in each of the 14 ROPELOC subscale domains.

b) H_O: There are no differences between pre-program and six-month follow-up scores in each of the 14 ROPELOC subscale domains.

H_a: There are differences between pre-program and six-month follow-up scores in each of the 14 ROPELOC subscale domains.

c) H_O: There are no differences between post-program and six-month follow-up scores in each of the 14 ROPELOC subscale domains.

H_a. There are differences between post-program and six-month

follow-up scores in each of the 14 ROPELOC subscale domains.

3) Differences between genders

a) H_O: There is no difference in composite ROPELOC scores between

genders.

H_a: There is a difference in composite ROPELOC scores between

genders.

b) H_O: There are no differences in ROPELOC subscale scores between

genders.

H_a: There are differences in ROPELOC subscale scores between

genders.

Research Design

This study used a single-group quasi-experimental design with repeated

measures. This design was chosen due to the unavailability of a control or comparison

group. Unfortunately, this limitation is common in outdoor education research and does

present some threats to the internal validity of this study. Possible threats to internal

validity include natural maturation over time, familiarity with the test instrument, and

regression toward the mean over time. Use of a control or comparison group would have

been beneficial in mitigation of the maturation threat as well as to allow for comparisons

between similar programs. Multiple measures are an important component of the study

because they show changes over time on the dependent variables. The pre-test provides a baseline to measure and analyze change over time.

Sampling

The researcher recruited participants from the entire population at Schultz Middle School for this study. The program was discussed initially in late May at a "meet your teacher night" where the entire student population was invited. Later, participants and their parents were sent a flyer two months prior to their program introducing the program and asking for consent. Participants were informed that this study was being conducted under the supervision of the researcher, Brian Merrell. Four hundred and one participants were invited to participate in the study, 37 actually participated in the study. Consent was obtained from all 37 participants. In addition, all completed both pre- and post- program questionnaires. Of those participants who successfully completed both pre- and post- program questionnaires, 22 male and 15 female students. The age range of participants was 11-13 years.

Instrumentation

The Review of Personal Effectiveness with Locus of Control (ROPELOC) measures key psychological and behavioral domains that constitute "life effectiveness." It is specifically sensitive to the effects of experience-based programs (Neill, 2008). The ROPELOC contains 14scales: personal abilities and beliefs (self-confidence, self-efficacy, stress management, and open thinking), social abilities (social effectiveness,

cooperative teamwork, and leadership ability), organizational skills (time management, quality seeking, and coping with change), an "energy" scale called active involvement, and a measure of overall effectiveness in aspects of life. The two Locus of Control scales measure the individual's tendency to take responsibility for his/her actions and successes or to see external controls determining actions.

1. Time efficiency: sum of questions 14, 23, 43

2. Coping with change: sum of questions 15, 30, 44

3. Overall effectiveness: sum of questions 13, 29, 45

4. Internal Locus of Control: sum of questions 5, 21, 37

5. External Locus of Control: sum of questions 9, 25, 41

6. Control Items: sum of questions 1, 17, 33

7. Active involvement: sum of questions 6, 20, 35

8. Cooperative teamwork: sum of questions 2, 16, 31

9. Leadership ability: sum of questions 4, 19, 34

10. Open thinking: sum of questions 7, 22, 36

11. Quality seeking: sum of questions 8, 23, 38

12. Self confidence: sum of questions 10, 24, 39

13. Self efficacy: sum of questions 3, 18, 32

14. Social effectiveness: sum of questions 11, 26, 40

15. Stress management: sum of questions 12, 27, 42

Data Collection

Data was collected during the summer of 2008 from those participants who had consented to take part in the study and attended the camp. Brian Merrell administered the first round of surveys as participants arrived to the designated meeting area; in most cases, this took place in the school cafeteria immediately upon arrival. The second round of surveys was administered on the final full day of the camp. Administration of the survey at this time presented no significant interruption in the normal routine of this day. Follow-up surveys were completed six months later in January with minimal interruption to the school day.

Data Analysis

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS). The participants were given individual identification codes to maintain anonymity, and their responses were entered into the SPSS data set. Composite ROPELOC scores for Time 1 (pre-program survey), Time 2 (post-program survey), and Time 3 (six month post-program survey) were computed, as were subscale scores for each ROPELOC domain for Time 1, Time 2, and Time 3.

Analysis of Composite ROPELOC Scores

To evaluate for differences in composite ROPELOC, a difference score was computed for each time administration. These variables were computed from composite ROPELOC scores as the difference between Time 1 and Time 2, Time 2 and Time 3,

and Time 1 and Time 3. Three independent samples t-tests were then conducted.

Significance was determined as p<.05.

Analysis of Subscale ROPELOC Scores

To evaluate for differences in subscale ROPELOC scores, independent t-tests were utilized. A mean score for each of the 14 different domains across the three different administrations were calculated. Forty-five different paired t-tests were then conducted to determine significance. There were fifteen different domains and each domain was measured 3 times.

Analysis of Gender Differences

To evaluate for differences in composite ROPELOC scores related to gender, a difference score was computed for each gender. These variables were computed from composite ROPELOC scores as the difference between Time 1 and Time 2, Time 2 and Time 3, and Time 1 and Time 3.

CHAPTER IV

RESULTS

The purpose of this study is to measure the effects of Leadership Inspiration Facilitation Team (LIFT) on life effectiveness and locus of control for a group of sixth grade students at Schultz Middle School. The ROPELOC is a combination of life effectiveness and locus of control. The ROPELOC can be broken down further into the following subscales: active involvement, cooperative teamwork, leadership ability, open thinking, quality seeking, self-confidence, self-efficacy, social effectiveness, stress management, time efficiency, coping with change, overall effectiveness, internal locus of control, and external locus of control. This study tested the following research questions in relation to composite ROPELOC scores, subscale scores, and gender:

1. Composite ROPELOC

    a. Is there a significant difference in composite ROPELOC scores between preprogram scores and post-program scores?

    b. Is there a significant difference in composite ROPELOC scores between preprogram scores and six-month follow-up scores?

    c. Was there a significant difference in composite ROPELOC scores between post-program scores and six-month follow-up scores?

2. ROPELOC subscale domains

    a. Is there a significant difference in any of the 14 ROPELOC subscale scores between pre-program scores and post-program scores?

b. Is there a significant difference in any of the 14 ROPELOC subscale scores between pre-program scores and six-month follow-up scores?

c. Is there significant difference in any of the 14 ROPELOC subscale scores between post-program scores and six-month follow-up scores?

3. Is there a difference in participants' composite ROPELOC scores between genders?

In addition, the following research hypotheses measures the effects of LIFT on life effectiveness and locus of control using the ROPELOC. The three hypotheses are instrumental in explaining the effect, if any, of LIFT on the participants.

1. Potential differences in composite ROPELOC scores between (a) pre-program and post-program, (b) pre-program and six-month follow up, and (c) post-program and six-month follow up.

2. Potential differences in subscale ROPELOC scores between (a) pre-program and post-program, (b) pre-program and six-month follow up, and (c) post-program and six-month follow up.

3. Potential differences between the composite ROPELOC scores of males and females in the study group.

Age and Gender

Thirty-seven participants completed the pre-program and post-program questionnaires. Of these 37 participants, 22 (59%) were male and 15 (41%) were female. At the time of the study, two participants (5%) were 11 years old, thirty (81%) were 12

years old, and five (14%) were 13 years old. Descriptive statistics for gender and age of

the participants are presented in Table 1.

Table 1

Participant Demographics by Age and Gender

	Male		*Female*		*Total*	
Age	Percentage	Number	Percentage	Number	Percentage	Number
11	5	2	0	0	5	2
12	43	16	38	14	79	30
13	11	4	3	1	14	5
Total	59	22	41	15	100	37

Analysis of ROPELOC Scores

Research Hypotheses and Composite Scores

The following hypotheses are employed to evaluate the significance between ROPELOC composite scores:

a) H_O: There is no difference between pre-program and post-program composite ROPELOC scores.

H_a: There is a difference between pre-program and post-program composite ROPELOC scores.

b) H_O: There is no difference between pre-program and six-month follow-up composite ROPELOC scores.

H_a: There is a difference between pre-program and six-month follow-up composite ROPELOC scores.

c) H_O: There is no difference between post-program and six-month follow-up composite ROPELOC scores.

H_a: There is a difference between post-program and six-month follow-up composite ROPELOC scores.

A paired t-test is used to evaluate for significant differences in composite ROPELOC scores. The means and standard deviations are presented in Table 2.

Table 2

Means and Standard Deviations of Composite ROPELOC Scores

	Time 1			Time 2			Time 3	
	Mean	Standard Deviation		Mean	Standard Deviation		Mean	Standard Deviation
All participants	6.14	.19		6.19	1.05		5.96	.97

A paired comparison shows no significant difference in composite ROPELOC scores. No significance was found between the pre-test and the post-test, $t(1.66) = .105$, $p > .05$, pre-test and follow-up, $t(1.04) = .305$, $p > .05$, and post-test and follow-up $t(1.46) = .153$, $p > .05$. Figure 1 illustrates these changes over time.
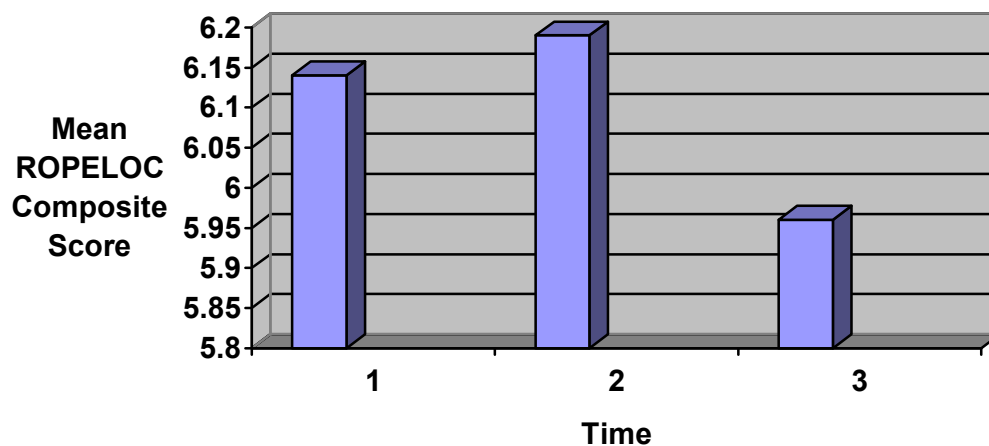
Figure 1. Changes in composite ROPELOC scores over time.

The results show that there is an increase in the mean composite ROPELOC score between pre-test and post-test. This difference is not significant. However, at the time of the follow-up test the increase in the composite score had diminished below the original level. This difference is not considered significant.

Research Hypotheses and Subscale Scores

The following hypotheses are used to evaluate the significance between ROPELOC subscale domains and the different test administrations:

a) H_O: There are no differences between pre-program and post-program scores in each of the 14 ROPELOC subscale domains.

   H_a: There are differences between pre-program and post-program scores in each of the 14 ROPELOC subscale domains.

b) H_O: There are no differences between pre-program and six-month follow-up scores in each of the 14 ROPELOC subscale domains.

   H_a: There are differences between pre-program and six-month follow-up scores in each of the 14 ROPELOC subscale domains.

c) H_O: There are no differences between post-program and six-month follow-up scores in each of the 14 ROPELOC subscale domains.

   H_a. There are differences between post-program and six-month follow-up scores in each of the 14 ROPELOC subscale domains.

Paired t-tests for each of the 14domains are represented in Table 3 (Pre-Program vs. Post-Program), Table 4 (Pre-Program vs. Follow-Up), and Table 5 (Post-Program vs. Follow-Up), totaling 52 subscales. Of those, three out of the 52 subscales show

significant results coping with change, cooperative teamwork, and external locus of control. Coping with change shows significance for the pre-test and follow-up, t(2.07) = .04, p > .05, and the post-test and follow-up, t(2.33) = .02, p > .05. In addition, cooperative teamwork shows significance for both the pre-test and post-test, t(2.03) = .04, p > .05. Finally, external locus of control shows significance in pre-test and follow-up, t(4.2) = .00, p > .05, and post-test and follow-up t(4.08) = .00, p > .05.

Table 3

Pre-Program vs. Post-Program Dependent T-Test for ROPELOC Domains

Research Subscales	T score	Degrees of freedom	Significance
Active Involvement	1.43	36	.160
Coping with Change	.66	36	.507
Cooperative Teamwork	2.03	36	.049*
External Locus of Control	.861	36	.394
Internal Locus of Control	1.01	36	.317
Leadership Ability	1.50	36	.142
Overall Effectiveness	.138	36	.89
Open Thinking	1.66	36	.103
Quality Seeking	.886	36	.381
Self Confidence	1.26	36	.215
Social Effectiveness	.683	36	.498
Self Efficacy	2.01	36	.051
Stress Management	.263	36	.798
Time Efficiency	1.49	36	.142

Note: *p>.05, **p>.01

Table 4

Pre-Program vs. Follow-Up Dependent T-Test for ROPELOC Domains

Research Subscales	T score	Degrees of freedom	Significance
Active Involvement	.842	36	.405
Coping with Change	2.07	36	.045*
Cooperative Teamwork	1.00	36	.320
External Locus of Control	4.23	36	.000**
Internal Locus of Control	1.08	36	.284
Leadership Ability	.776	36	.442
Overall Effectiveness	.346	36	.731
Open Thinking	.485	36	.631
Quality Seeking	.733	36	.468
Self Confidence	.242	36	.810
Self Efficacy	.523	36	.603
Time Efficiency	.230	36	.818

Note: $*p>.05$, $**p>.01$

Table 5

Post-Program vs. Follow-up Dependent T-Test for ROPELOC Domains

Research Subscale	T score	Degrees of freedom	Significance
Active Involvement	.511	36	.612
Coping with Change	2.33	36	.025*
Cooperative Teamwork	.664	36	.510
External Locus of Control	4.08	36	.000**
Internal Locus of Control	.786	36	.436
Leadership Ability	.372	36	.711
Overall Effectiveness	.308	36	.759
Open Thinking	.933	36	.356
Quality Seeking	.320	36	.750
Self Confidence	.343	36	.733
Self Efficacy	.037	36	.969
Stress Management	1.46	36	.152
Time Efficiency	.68	36	.500

Note: *p>.05, **p>.01

Figure 2 illustrates the ROPELOC changes over time in coping with change, cooperative teamwork, and external locus of control. No significant difference are measured in any of the other 11 domains: active involvement, leadership ability, open thinking, quality seeking, self confidence, self efficacy, social effectiveness, stress management, time efficiency, overall effectiveness, and internal locus of control.
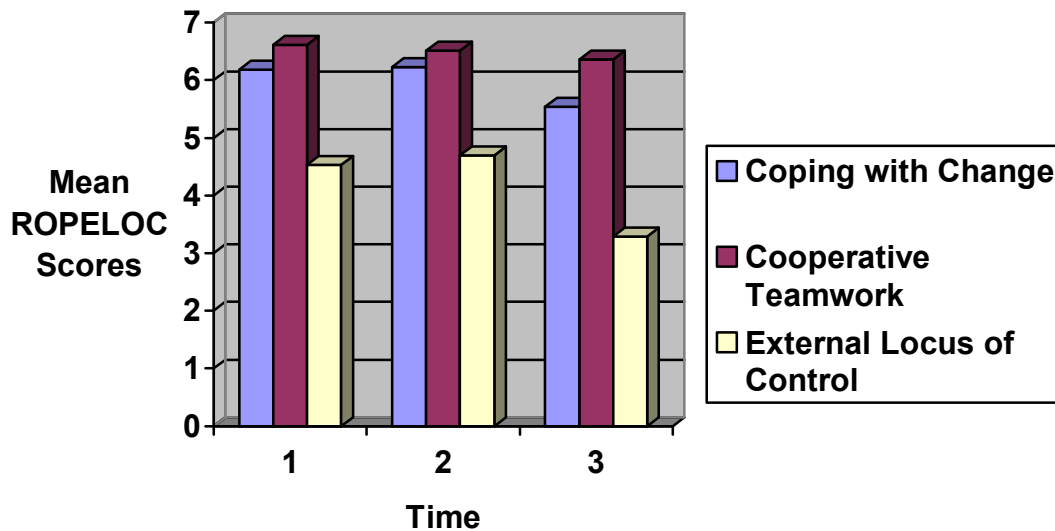
Figure 2. Changes Over Time in Coping With Change, Cooperative Teamwork, and External Locus of Control ROPELOC Subscale Scores.

Demographic Variables

Research Hypotheses and Gender

In order to evaluate the significance between ROPELOC composite scores and gender, the following hypothesis were developed:

a) H_O: There is no difference in composite ROPELOC scores between genders.

H_a: There is a difference in composite ROPELOC scores between genders.

b) H_O: There are no differences in ROPELOC subscale scores between genders.

H_a: There are differences in ROPELOC subscale scores between genders.

Independent-samples t-tests are conducted to evaluate the difference between genders in composite ROPELOC change scores. The means and standard deviations of these groups are presented in Table 6. The test results are significant in four of the six administrations.

Table 6

Means and Standard Deviations of Change Scores by Gender

	Time 1 - Time 2		Time 1 - Time 3		Time 2 - Time 3	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Females	.004	.176	-.39	1.30	-.40	1.175
Males	.09	.20	-.04	.86	-.13	.84

Figure 3 illustrates the changes in ROPELOC composite mean scores by gender. The test results are not significant for any of the time intervals. This suggests that neither female nor male participants' life effectiveness is likely to be influenced by the program to a greater degree than the other gender. One interesting observation about the differences between females and males in the study is visible in Figure 3. In contrast to female participants, males' ROPELOC scores are higher the third time interval compared to the females averaging higher on the previous two time intervals.
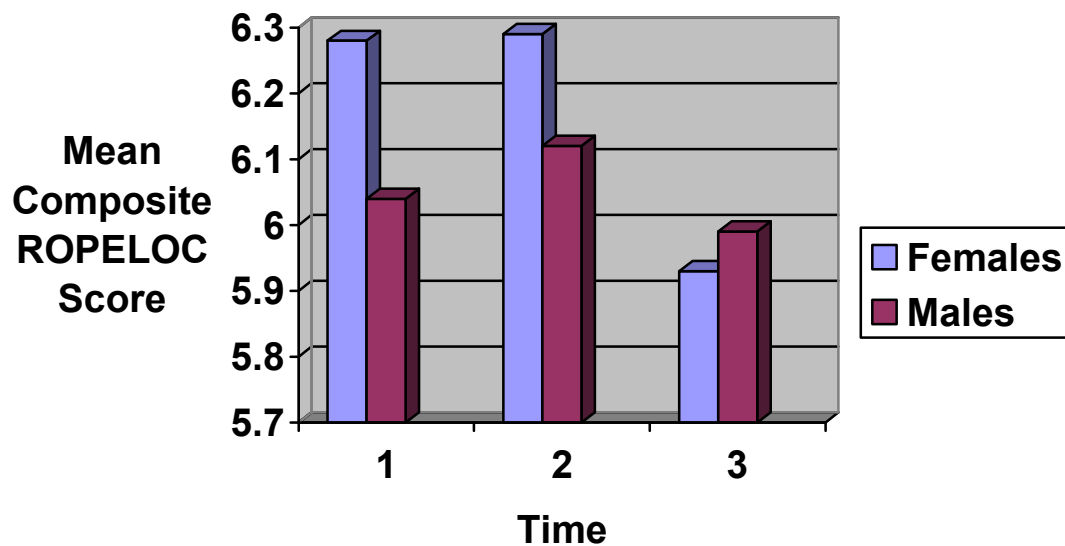

Figure 3. Changes in composite ROPELOC scores by gender.

Summary of Study Results

In summary, a multi-method approach for all data collected was utilized to strengthen the validity of the findings. The study sought to answer three research questions: are there significant differences in composite, subscale, and gender scores for those students who attended the LIFT summer camp. To address these questions, this study used three different data points, pre-program, post-program, and follow-up, using the ROPELOC, Review of Personal Effectiveness and Locus of Control, developed by James Neil.

The results of the study suggest that the LIFT summer camp did improve the life effectiveness and locus of control in three of the 14 subscales: coping with change, cooperative teamwork, and external locus of control. Coping with change was found to be statistically significant for pre-program vs. post-program; however, it remained the same as time went on. This suggests that there was an immediate positive effect on students' perception of their ability to cope with change. Cooperative teamwork was found to be statistically significant for pre-program vs. post-program and post-program vs. follow-up, which suggests that as time went on the participants' perception of their ability to work cooperatively within teams increased. Finally, external locus of control was found to be significant for pre-program vs. follow-up and post-program vs. follow-up. This also suggests that as time went on the participants' perception of their ability to accept that external issues control or help to determine success. Gender did not show a statistically significant difference.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study is to investigate the effects of LIFT on life effectiveness and locus of control for enrolled adolescents in LIFT. The research questions are listed below:

1. Composite ROPELOC

   a. Is there a significant difference in composite ROPELOC scores between preprogram scores and post-program scores?

   b. Is there a significant difference in composite ROPELOC scores between preprogram scores and six-month follow-up scores?

   c. Was there a significant difference in composite ROPELOC scores between post-program scores and six-month follow-up scores?

2. ROPELOC subscale domains

   a. Is there a significant difference in any of the 14 ROPELOC subscale scores between pre-program scores and post-program scores?

   b. Is there a significant difference in any of the 14 ROPELOC subscale scores between pre-program scores and six-month follow-up scores?

   c. Is there significant difference in any of the 14 ROPELO subscale scores between post-program scores and six-month follow-up scores?

3. Is there a difference in participants' composite ROPELOC scores between genders?

This chapter presents limitations of the study, a discussion of each research question, implications of the research, and recommendations for future research.

Limitations of the Study

The outcome of the research may have been influenced by several factors, thus producing limitations. Some of the limitations are common among this type of study; others are unique, specific only to this type of research, including limited sample size, lack of a control group, and the fact that a self-report questionnaire was used. In addition, a primary difficulty is generalizing the results of this individual program to groups with different ethnic composition, socio-economic status, and other demographic characteristics many of which are unknown.

Limited Sample Size

The sample size is one of the most significant limitations of the study. The study has only 36 participants. We were very fortunate, however, that all participants were present and enrolled throughout the entire study. Statistically significant changes become difficult to show with such a small sample size because larger differences are required. It requires a greater mean change to be confident that the change is a result of the intervention rather than due to normal measurement error. With a larger sample, it is likely that changes measured resulted not from the intervention and not from error. In many of the analyses, insignificant increases were present which may have been significant if present in a larger sample.

Lack of Control or Comparison Group

For the purposes of this study, a control or comparison group was not used. A control group made up of adolescents who did not participate in LIFT or any other organized program during the time of the study would have been preferred, however, a control group was not feasible and would have been impossible to obtain due to the time of the camp. In many ways, a control or comparison group provides a point of reference. The use of a control group would have allowed the changes found in LIFT to be measured against changes of a similar group of adolescents who have not taken part in a program. In addition, without the influential effects of an organized program, maturation and the effects of time would have been the dominant influence on these adolescents. This would have enhanced the internal validity of the study. The changes due to the program or due to typical adolescent growth during the time of the study would be much clearer. An alternative approach for creating a comparison group would have been to create a group in a different program, or perhaps a different LIFT group, that began at different intervals of the school year. With a comparison group, it is possible to analyze for changes between different types of programs and to compare one with the other. This would have improved the external validity of the study.

The above-mentioned limitations of lack of control groups are significant. For this reason, results from this single study should not be used to generalize externally to other adventure based programs. While many programs utilized similar activities, initiatives, and group process activities, the differences between programs may be strong enough that findings are not generalizable.

Use of Self-Report Data

The ROPELOC is a self-report instrument that relies on honesty and accurate perceptions of self in order to measure life effectiveness. Unfortunately, it is entirely plausible that an adolescent would not have an accurate view of how well he or she functions in life; however, the instrument represents only a snapshot in time taken at the time the instrument is given. Adolescents are complex, and their self-concept and self-efficacy are capable of wide fluctuations. Timing for the various administrations of the instrument has the potential to affect how each subject rated himself or herself.

<div align="center">Discussion of the Research Questions</div>

Composite ROPELOC Scores

The primary research question of this study asks whether participation in LIFT affects adolescent life effectiveness. If summer camps, like LIFT, are to be considered effective components of the overall positive development of adolescents, then their effectiveness is a critical question to answer. In this study, composite ROPELOC scores improved marginally from the pre-program scores to the post-program but then drop six months later. The post-program results are not high enough to be statistically significant. In reality, the six-month follow-up means composite scores drop below the original pre-program and post-program score.

The most likely answer for the post-program results can be attributed to the program. However, it is unclear if this increase actually represents a genuine improvement in the life effectiveness of the participants. The data supports an immediate

impact on the adolescents by the camp. This could be in part due to the fact that participants generally enjoy themselves in these experiences, and during the course of their program they are challenged physically, emotionally, and socially. The literature showed a wide variety of benefits related to outdoor and adventure education programs which include the following: 1) increases in self-concept measures such as self-esteem and self-confidence (American Camp Association [ACA], 2007; Cason & Gillis, 1994; Katy & Heesacker, 2003; Propst & Koester, 1998), 2) a more internalized locus of control (Hans, 2000; Newberry & Lindsay, 2000; Hattie et al., 1997; Marsh, Richards, & Barnes, 1986), 3) development of pro-social behaviors (Eagle, Gordon, and Lewis (2002), 4) spiritual growth (Griffin, 2003), 5) moral reasoning (Conrad & Hedin, 1981), and 6) leadership and autonomy (Hattie et al., 1997; Gass, 1990).

There are two possible reasons for the decline in the mean composite scores from the highest point, post-program, to its lowest point follow-up. The first reason is that the personal growth that occurs in the program fades naturally over time after the program ends, as shown by Haras and Bunting (2005). The second and less favorable rationale for the trend is that the program did not significantly affect the long-term life effectiveness of the participants. The initially rise in composite scores could be a short-lived feeling from participants rather than a genuine increase or personal growth. The possibility exists because of using a self-reported measure for life effectiveness; to be able to distinguish the difference between feeling good about one's self and genuine improvements in life effectiveness would present incredible challenges to participants

and researchers. Still, while the decline was measureable, it was not statistically significant.

ROPELOC Subscale Scores

Three of the 14 subscales show significant improvements in three of the 14 subscales: cooperative teamwork, coping with change, and external locus of control. Interestingly enough, only one subscale, cooperative teamwork, shows a statistically significant improvement between the pre-program and post-program results. In this environment, cooperative teamwork is constantly needed while on the ROPES course. Gass (1993) found that adventure-based programs could improve self-concept, team work, cooperation, and leadership of participants by building trust in others and in oneself themselves. The role of the camp is to facilitate this process so that it is easier for participants to be successful when faced with challenges and initiatives. However, upon returning to the home and school environments, these same skills are not necessarily taught, re-enforced, or appreciated. In fact, adventure/ experiential learning is an active process that involves placing the learner in unfamiliar environments, outside their comfort zone, and into a state of dissonance (Gass).   Participants may very easily slip back into the previous behaviors.

The remaining two subscales, coping with change and external locus of control, showed significant improvements between the pre-program and follow-up as well as the post-program and follow-up. In both cases, the applicability of the subscales has a carryover effect into the home and school environment, where they would be further reinforced and are in many ways connected. In this case, it appears that students began

the process of recognizing that external events are out of their control and began to practice the art of coping with that change.

The other subscales do not show significant differences, although the nature of the program might be expected to create the conditions necessary for growth in these areas. Subscales that were expected to increase but did not included active involvement, leadership ability, self-confidence, and self-efficacy.

Gender

This study also addressed the question of whether differences existed between the genders. No significant differences were found between male and female. This suggests that gender does not affect the ability of LIFT to improve the life effectiveness of participants.

Implications

The generalization to other similar adventure-based summer programs cannot be made due to the limited size and methodology employed in this study and the unique nature of the LIFT program. However, the findings provide valuable insight into how LIFT influences the lives of its participants at Schultz Middle School.

It is clear that ROPELOC scores improved from the beginning of the camp to the end. Cooperative teamwork, coping with change, and external locus of control are the only three out of the 14 ROPELOC subscales that proved to be significant. The causes for the changes are clearly programmed into the LIFT camp through the initiatives and

group processing. The best opportunity to influence the remaining 11 subscales would be to intentionally create programming that addresses these subscale areas.

Finally, another implication is the length of the camp. Research suggests that additional time and attention could possibly re-enforce the subscales and help to maintain what is originally learned during the camp. Haras and Bunting (2005) recently studied the concept of creating meaningful experience for ropes participants. They found that participants experiences of meaningful involvement are affected by program design, including length, and delivery of attributes. This is accomplished using various methods, including, but not limited to a longer camp setting, additional days throughout the year, or processing to relate the camp experiences to what they are currently experiencing. Additional research indicated that longer programs are generally more effective than shorter programs (Cason & Gillis, 1994; Hattie et al., 1997).

Finally, the findings of this study suggest greater scrutiny of all interventions. Educators implement many interventions that appear to have a positive impact on students, however, if proper research designs are not implemented the impact if any is undetermined. Money, time, and personnel are used each year and the affect of the programs are monitored and evaluated. What appears to have a positive impact, must be measured in light of dwindling budgets.

Recommendations for Future Research

Much research is currently underway in the field of Positive Youth Development. In order for programs to increase, visibility and standing within the field, more high

quality empirical research needs to be performed. Replication of this study is needed in more schools, and the use of control groups and multiple measures will add to the consistency of data collection. Larger sample sizes, longer follow-up times, and further validation of self-report instruments are examples of where improvements in study design and methodology can be made. The lives of adolescents are complex, and any attempt to understand the interactions between the many factors at play would be a step closer to understanding how to best offer the supports and opportunities that youth need.

Finally, additional research could be done to measure the effects, if any, in a different geographical setting. An urban district might yield different results.

Conclusion

Participants in the LIFT summer program have increased self-perceptions of life effectiveness at the immediate conclusion of the program. The degree of significance has yet to be determined, and the length of significance is still in question. Researchers maintain that positive youth development is a complex myriad of interventions. Pittman (2000) found that positive youth development has taken a proactive shift to promote healthy development outcomes for all youth, in addition to reducing long-term negative outcomes of at-risk youth and has emerged into its own as an independent field of study. Flay (2002) showed that positive youth development is resulting from the combination of several factors that lead to the development of more comprehensive models and the development of programs which address multiple behaviors and that involve families and community. This approach challenges researchers to take into considerations the

cultural, political, social, and even historical forces when studying and applying positive youth development (Swanson, Spencer, Dell'Angelo, Harpalani, & Spencer, 2002).

In order for youth to be fully prepared for a successful adulthood, more than a single program is required. Adolescents need a network of positive influences over time. Although questions remain, it remains likely that adventure-based programs such as LIFT can indeed have positive, significant effect on developing positive youth skills when viewed in the complex context of adolescent development. Likewise, no single program can prepare adolescents for adulthood. Rather it takes a mosaic of people, experiences, and programs, including adventure-based programs like LIFT, to prepare youth positively for the challenges they will face as they move into adulthood.

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APPENDIX

AGE:_____(years) _____(mths)   DATE:___/___/____

 MALE / FEMALE (circle one) PROGRAM:_____

          GROUP:_____

GER20/9/00	ROPELOC©

PLEASE READ THESE INSTRUCTIONS FIRST
This is not a test - there are no right or wrong answers.

This is a chance for you to look at how you think and feel about yourself. It is important that you:
- are honest
- give your own views about yourself, without talking to others
- report how you feel NOW (not how you felt at another time in your life, or how you might feel tomorrow)

Your answers are confidential and will only be used for research or program development. Your answers will not be used in any way to refer to you as an individual.

Use the eight point scale to indicate how true (like you) or how false (unlike you), each statement over the page is as a description of you. Please do not leave any statements blank.

1- 2 This statement doesn't describe me at all, it isn't like me at all
3- 4 More false than true
5- 6 More true than false
7- 8 This statement describes me very well; it is very much like me

SOME EXAMPLES

A. I am a creative person.   1   2   3   4   (5)
                    6   7   8

   (The 6 has been circled because the person answering believes the statement "I am a creative person" is sometimes true. That is, the statement is sometimes like him/her.)

B. I am good at writing poetry.   1   (2)   3   4   5
                    6   7   8

(The 2 has been circled because the person answering believes that the statement is mostly false as far as he/she is concerned. That is, he/she feels he/she does not write good poetry.)

C I enjoy playing with pets.   1   2   3   4   ⊗   ◯

                        6   7   8

(The 6 has been circled because at first the person thought that the statement was mostly true but then the person corrected it to 7 to show that the statement was very true about him/her.)

If still unsure about what to do, ASK FOR HELP.

STATEMENT   TRUE
STATEMENT FALSE

----

01. When I have spare time I always use it to paint.	1	2	3	4	5	6	7	8
02. I like cooperating in a team.	1	2	3	4	5	6	7	8
03. No matter what the situation is I can handle it	1	2	3	4	5	6	7	8
04. I can be a good leader.	1	2	3	4	5	6	7	8
05. Efforts and actions are what will determine my future.	1	2	3	4	5	6	7	8
06. I prefer to be actively involved in things.	1	2	3	4	5	6	7	8
07. I am open to different thinking if there is a better idea.	1	2	3	4	5	6	7	8
08. In everything I do I try my best to get the details right.	1	2	3	4	5	6	7	8
09. Luck, other people and events control most of my life.	1	2	3	4	5	6	7	8
10. I am confident that I have the ability to succeed in anything I want to do.	1	2	3	4	5	6	7	8
11. I am effective in social situations.	1	2	3	4	5	6	7	8
12. I am calm in stressful situations.	1	2	3	4	5	6	7	8
13. My overall effectiveness in life is very high.	1	2	3	4	5	6	7	8
14. I plan and use my time efficiently.	1	2	3	4	5	6	7	8
15. I cope well with changing situations.	1	2	3	4	5	6	7	8
16. I cooperate well when working in a team.	1	2	3	4	5	6	7	8
17. I prefer things that taste sweet instead of bitter.	1	2	3	4	5	6	7	8
18. No matter what happens I can handle it.	1	2	3	4	5	6	7	8
19. I am capable of being a good leader.	1	2	3	4	5	6	7	8
20. I like being active and energetic.	1	2	3	4	5	6	7	8
21. What I do and how I do it will determine my successes in life	1	2	3	4	5	6	7	8
22. I am open to new thoughts and ideas.	1	2	3	4	5	6	7	8
23. I try to get the best possible results when I do things.	1	2	3	4	5	6	7	8
24. I am confident I will succeed.	1	2	3	4	5	6	7	8
25. My future is mostly in the hands of other people.	1	2	3	4	5	6	7	8
26. I am competent and effective in social situations.	1	2	3	4	5	6	7	8
27. I can stay calm and overcome anxiety in almost all situations.	1	2	3	4	5	6	7	8
28. I am efficient and do not waste time.	1	2	3	4	5	6	7	8
29. Overall, in all things in life, I am effective.	1	2	3	4	5	6	7	8
30. When things around me change I cope well.	1	2	3	4	5	6	7	8

31. I am good at cooperating with team members.	1	2	3	4	5	6	7	8
32. I can handle things no matter what happens.	1	2	3	4	5	6	7	8
33. I solve all mathematics problems easily.	1	2	3	4	5	6	7	8
34. I am seen as a capable leader.	1	2	3	4	5	6	7	8
35. I like to get into things and make action.	1	2	3	4	5	6	7	8
36. I can adapt my thinking and ideas.	1	2	3	4	5	6	7	8
37. If I succeed in life it will be because of my efforts.	1	2	3	4	5	6	7	8
38. I try to get the very best results in everything I do.	1	2	3	4	5	6	7	8
39. I am confident in my ability to be successful.	1	2	3	4	5	6	7	8
40. I communicate effectively in social situations.	1	2	3	4	5	6	7	8
41. My life is mostly controlled by external things.	1	2	3	4	5	6	7	8
42. I am calm when things go wrong.	1	2	3	4	5	6	7	8
43. I am efficient in the way I use my time.	1	2	3	4	5	6	7	8
44. I cope well when things change.	1	2	3	4	5	6	7	8
45. Overall, in my life I am a very effective person.	1	2	3	4	5	6	7	8

VITA

Brian Merrell received his Bachelor of Arts degree in biology from Texas A&M University in 1998. He entered the educational administration program at Texas A&M University in September 1998 and received his Master of Education degree in May 2001. His research interests include student leadership and experiential education.

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