1996

Use of a challenge course as an intervention tool to adolescent self-esteem

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**USE OF A CHALLENGE COURSE
AS AN INTERVENTION TOOL
TO ADOLESCENT SELF-ESTEEM**

A Thesis

Presented to

**The Faculty of the Department of Recreation and Leisure Studies
San Jose State University**

**In Partial Fulfillment
of the Requirements for the Degree
Master of Science**

by

Tanya Lynne Aghazarian

December 1996

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ABSTRACT

USE OF A CHALLENGE COURSE AS AN INTERVENTION TOOL TO ADOLESCENT SELF-ESTEEM

by Tanya L. Aghazarian

This thesis addressed the question of whether a one-day challenge ropes course can be used as a tool to positively intervene adolescent self-esteem. The question was tested by having 17 male and female high school students voluntarily participate on the course as the experimental group, and another 23 not participate as the control group. Self-esteem was measured three times (pre, post, and follow-up) by the Self-Perception Profile for Adolescents (Harter, 1988c) and personal written comments. A two-way t-test comparing gain scores showed a significant increase in global self-worth for experimental subjects. In addition, a qualitative analysis of written comments demonstrated that the thesis hypothesis was supported. Conclusions noted that the use of the challenge ropes course was successful in its aim to increase adolescent self-esteem. The program not only allowed the opportunity to take a risk of doing something new and challenging, but also provided the individuals with supportive feedback from their peers and leaders.

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CHAPTER ONE

Introduction and Statement of the Problem

Introduction

The transformation and reformation of societal living conditions have been taking place for centuries. Each era is believed to be worse than the previous era. Robert Fulghum (1993) put it succinctly: decide whether it is truly a problem or if it is merely an inconvenience. Today's concerns are not inconveniences; they are problems. For example, when teachers from 20 years ago were asked, "What are the major discipline problems with students in your classroom?", they responded with chewing gum, running in the hallway, and students getting out of their seats. Today, teachers answer the same question with startling distinction. Responses include guns, illegal drugs, teen pregnancy, and suicide. Social psychologists recognize problems such as: "rising rates of suicide, violent crime, sexually transmitted disease, unwanted pregnancy – not to mention a growing economic instability fueled by the irresponsibly selfish behavior of many politicians and businesspersons" (Csikszentmihalyi, 1993; Robertson, 1994). The California Task Force to Promote Self-Esteem and Personal and Social Responsibility (1990) stated that elements such as substance abuse, crime, violence, educational failure, eating disorders, depression, child abuse, and anxiety plague our state. All of these problems, which truly are not inconveniences, are associated with the lack of positive self-esteem (CA Task Force, 1990).

In the human life cycle, adolescence is the time of the lowest self-esteem (Csikszentmihalyi & Larson, 1984; Erikson, 1980). Adolescence is a transition time of increasing responsibility, acquiring new skills, acknowledging self-awareness, accentuating personal growth, and questioning self-identity (Csikszentmihalyi & Larson, 1984; Harper & Marshall, 1991). Social problems of the 1990's, like economic uncertainty, family disintegration, and community attrition, are making the probability of completing the transition from adolescence into adulthood with positive self-esteem remote (Palladino, 1989).

Professionals have responded with articles and research reports on at-risk-youth; government, business, and private foundations have volunteered model program funds to reduce at-risk-factors as means of prevention or treatment (CA Task Force Index, 1990). To date, these approaches have had sporadic successes, but not of the caliber needed to reduce risk factors or to eliminate the consequent outcomes for adolescents. However, these attempts have built a strong theoretical base to understand the effects of social problems on young people at the developmental stage concerned with creating self-identity. In childhood, youngsters become aware of themselves as individuated persons. By adolescence, the youth becomes concerned with "who am I" and "what shall I be" (Harter, 1988a). Technically, the process is one in which the child develops the ability to reflect mentally on him or herself in relation to what others perceive him or her to be and what is expected of him or her (Arkoff, 1988). Thus, the youth develops a concept of him or herself and learns to regard him or herself positively, negatively, or in mixed ways.

Research has enabled us to understand this process and to hypothesize, with greater chances of success, ways to intervene in the identity-building process (CA Task Force, 1990).

Previous societies used rites of passage and tests of personhood for adolescents to have an opportunity to prove self-identity and worth. Due to the social problems of today, our communities disintegrate through lack of funds, volunteerism, emotional support and encouragement, and trust from its members. As community structure, independence, and cohesiveness diminish, opportunities erode for youth to prove to themselves, and their community, that they can be who they have discovered and do what it is that is expected of them. Adolescents find other ways to cope with the need to prove their self-worth. Common unsuccessful attempts to prove self-worth through delinquency include: committing crimes, engaging in vandalism, joining gangs, becoming pregnant, or as a last resort, committing suicide (Robertson, 1994).

How can adults support youth to ease the transition into adulthood and to make the adolescent years a positive influence and success? There are two parts to the solution suggested here. First, adults can provide support and encouragement, and, second, opportunities can be developed for adolescents to challenge their competence in newly developed skills that will be their major source of self-confidence and personal self-esteem in the teen years. Together this two-part solution will give adolescents the courage to forge into adulthood, having proven their worth to themselves and others through healthy experiences.

Adults who influence youth in these ways include parents, teachers, coaches, and anyone the adolescent sees as significant who can give support and encouragement. The way in which a parent relates to a child is one of the first influences affecting the child's self-esteem (CA Task Force, 1990; Hines & Groves, 1989; Mack & Ablon, 1983; McKay & Fanning, 1992). Youngs (1991, p.3) boldly stated that: "The best chance a child has of securing a level of high self-esteem is to have parents who possess it, model it, and want to instill it in their children." Coopersmith (1967) noted that parental warmth was a significant factor in creating self-esteem for youth, along with clearly defined limits and respectful treatment. Csikszentmihalyi (1990) noted that family influence was a major factor in developing the self into a self-directing or autotelic personality.

After the influence of family, the interaction with teachers has been found significant because development of self-esteem and the courage to learn are the primary pre-requisites to learning (Mack & Albon, 1983). The importance of family is also followed by that of respected adults who play significant roles in many youth's lives, such as coaches, youth group leaders, and guidance counselors (Coopersmith, 1967; Hines & Groves, 1989; Levine, 1994). These people who become positive role models, provide needed encouragement to combat inner self-criticism and diminish the intensity of self-attacks which individuals with low self-esteem experience. Some of these individuals will be so admired that they will be recognized by youth as what has been termed a "significant other," someone having social influence on the youth (Arkoff, 1988).

The second approach to reinforcing positive self-esteem, providing opportunities for youth to challenge their competence, can be organized by community institutions with missions to serve well-being and mental health, like schools, recreation organizations, and certain small businesses. At the community level, programs can be developed specifically to assist youth in continuing to increase their self-esteem through building and testing their competence with newly developed skills. There are various programs that have the objective of enhancing self-esteem (e.g., Wings, Y-Kids, Boys and Girls Clubs, Girl Scouts, Friday Night Live, Twelve-Step programs, Outward Bound, and Project Adventure). These programs vary in design in respect to level of involvement, length, demographics of the group involved, mission, and philosophy. Whatever experience is designed into the program, there is usually some kind of challenge involved. There are opportunities to learn, to grow, to try out new skills, to take a step beyond that which is known and safe, to build a new level of competence. When programs such as these are difficult to join because of cost, availability, or adult support, youth turn to alternate means to accomplish personal challenge and growth, such as gangs and delinquency (Robertson, 1994). Csikszentmihalyi and Larson (1984, p. 187) stated that, "When people lack the skills to recognize more interesting opportunities, they tend to regress to simple and brutal choices." Community sponsored programs, if accessible, can aid adolescents in finding productive alternatives to creating positive self-esteem.

Need for the Study

Most of the present programming in communities is designed with the objective of promoting team-building, trust of self and others, self-esteem, confidence, intimacy, and ways to recognize personal growth. However, only a few of these programs have been empirically examined using validated data gathering methods that can yield reliable information about the significance of self-esteem for the participants (Wright, 1983). In general, the private sector programs, which are quite expensive and last from 3 to 5 weeks, have been used for the more extensive studies (Marsh & Richards, 1988; Wright, 1983). Shorter duration programs, lasting 3 to 8 hours, offered by non-profit and county organizations are less expensive but have even less documentation. Therefore, this scarcity of evidence in both private and public sectors suggested a need to study the efficacy of short-term, intensive, self-esteem development programs, using validated and reliable measurement instruments.

Study Design

Seventeen male and female high school students participated in a one-day personal-development training course at the Heron Lake Challenge Ropes Course in Napa, California, forming the experimental group. Another 23 students did not participate at the course and became the control group. A pretest, posttest, and follow-up test experimental design was carried out, using the multidimensional Self Perception Profile for Adolescents (Harter, 1988c) to assess changes in self-esteem for all subjects. In addition, the experimental group gave personal written comments at each test time. Any amount of

change in a positive direction for the experimental group was taken as an indication that this course had a positive effect on self-esteem.

Statement of the Problem

As our society battles the financial economy, and interest in helping adolescents develop into healthy adults dwindles, the need for inexpensive programs designed to increase self-esteem persists. Lack of empirical evidence that one-day programs increase self-esteem creates difficulties for professionals. For example, educators and human resource managers have difficulty justifying requests for grants, financial funding, and released time without empirically supported information from programs (Rossman, 1989). Due to the increased potential for longer-term adventure programs to produce positive results and the less-probable potential for shorter-term programs to offer positive findings, researchers have made little effort to examine the effects of the one-day challenge course as an intervention tool to self-esteem. By studying a one-day challenge course for its influence on self-esteem of adolescent subjects, the information produced offers a level of credibility not offered before for shorter-term programs.

In addition, from the problems stated earlier, the need to offer increased opportunities to enhance and/or repair adolescent self-esteem should be clearly understood. By providing empirical research on a one-day challenge course as an intervention tool for increasing adolescent self-esteem, community agencies will have increased options for servicing the self-development needs of adolescents.

Hypothesis

Participation in the one-day Heron Lake Challenge Ropes Course program will increase the level of self-esteem for subjects.

Who Would Benefit from This Study?

A study of this type benefits professionals in several fields as well as the general public. Recreation and leisure professionals will have justification needed to design or to refer youth to a short-term, low-cost, validated program like the one studied. Psychologists and therapists have a reliable therapeutic tool to supplement other therapeutic approaches. Educators can justify costs and needs for challenged-based programs as alternate curricula. Corporations should be more interested in supporting a proven means to complement training and organization-building programs for community youth. The general public, should show more daring in using the one-day challenge programs when seeking their own pathways to high self-esteem.

Delimitations of the Study

Delimitations are intentional or necessary limitations on the program design to narrow the scope of study into a reasonable field. These limitations could hinder the generalizability of the results to other situations, but were deemed desirable in order to improve the robustness of the study design. Four conditions were established to improve this study in specific ways; however, these changes created delimiting factors which may have influenced results.

Singular program site. One program site was used to conduct this research. This decision was made so that data collection could be controlled to avoid problems with weather differences, school calendar differences, and actual training course differences. Although other challenge course programs were similar, each has its own unique character and atmosphere. Since this study was delimited to one site, results may vary somewhat if compared across sites at a future time.

Sample size. The sample size for participation on the challenge course was limited to 20 participants due to strict enrollment limitations used in challenge course design. It is commonly accepted that several small groups of 8 to 12 participants engage in the training together and that each group be spaced so it has a sense of being alone with the trainer on the course. Moreover, the Heron Lake Challenge Course generally markets to classrooms of students, making multiples of 20 to 30 students typical in the field. The original total in the population sample was 95, while the final sample was 40 after subjects were dropped. Use of a computer-generated, statistical-analysis program adjusted for any possible bias due to the small number of subjects. However, this small sample did not allow for groups to be split for study by gender per experimental and control groups.

Gender selection. The study group was mixed by gender and consisted of four typical classes of male and female students. For this reason, the possible benefit of increased self-esteem gained from participating in an all-female group was sacrificed for female subjects (Henderson & Bialeschki, 1986; Mitten, 1986).

Age classification. Students from 16-18 years of age attending high school were studied. Since adolescence is generally accepted as occurring from puberty or about age 13 to the time when a youth leaves school to work (usually about 18 years-of-age), there are many developmental differences for youth, depending on age and gender. It is anticipated that younger youth may have had lower self-esteem scores to begin with and that girls' scores may have generally been lower than boys' scores at all ages.

Limitations

Limitations are program design elements that may influence the generalizability of results to other similar situations or populations. These are mentioned so that the reader can understand how the findings may be most appropriately used.

Leader selection. The Heron Lake Challenge Course is lead by three individual leaders all certified in facilitating group-building and personal development in group situations. Some leaders have more refined or specialty skills in certain areas due to amount of challenge course experience and/or the nature of personal background experiences. Heron Lake leaders are 1 man and 2 women between the ages of 28 and 35 years, one who devotes a full-time interest to group facilitation, and two who have only a part-time availability for the work. Since each experimental student group remained with the same leader for a minority of the day, variance in the participant experience due to varying facilitator expertise was minimized.

Self-esteem is personal. A majority of challenge courses have the flexibility to adapt the day's experiences to the needs and characteristics of each participating group.

The Heron Lake course is one that is flexible in its programmatic response to group size, special purposes or needs of each group, and the age- and gender-mix of a group.

However, self-esteem is highly personal and individualistic in nature so, even with the attempt at tailoring leadership techniques, group management, and challenges performed, the challenge program, in general, may not have had the same results in respect to self-esteem for all individuals or groups.

Measures. Most appraisal tools are of a self-reporting nature; therefore, answers can be influenced by the subject's interpretation, mood, perception of what he or she believes the researcher wants, and the testing environment (Babbie, 1992). Therefore, unexplained variation in results can be more likely due to personal variation rather than non-reliability of the instrument. However, use of standardized tests helped to minimize this bias. The instrument selected for this study had been tested for both reliability and validity in a variety of studies (Bogan, 1988; Boivin, Vitaro, & Gagnon, 1992; Dimmitt, 1995; Fox, Page, Armstrong, & Kirby 1994; Granlesse & Joseph, 1994; Hagborg, 1993; Hoare, Elton, Greer, & Kerley, 1993; Lavelle'e, Chagnon, & Pelletier, 1990; Van Dongen-Melman, Koot, & Verhulst, 1993, Wichstrom, 1995).

Selection bias. The subjects selected were from the school district nearest the challenge course. Since the school was approached by the researcher looking to fulfill study requirements for number and type of subjects, this was viewed as a convenience sample for the purpose of this study. The fee for the group to participate on the course was waived.

Sample bias. The group studied was not screened for subjects' ethnicity, religion, or other demographics before selection. The demographic composition of the group was assumed to be of typical variety and proportions with respect to the demographics of the area, which was fairly homogeneous. The sample was selected to minimize large differences in age, academic performance, and teacher's influence. These arrangements were made to reduce the effects on self-esteem scores that were not due to the independent variable, challenge course participation.

Assumptions

Assumptions are conditions that are presumed to be true. These assumptions were stated to inform the reader and to suggest possible unexplained variance in the results of the study.

Validity and reliability of the assessment tool. The tool used was assumed to be reliable and valid by research standards based on statements made to that effect.

Therefore, claims made about possible fallacies can be tested by replicating the study.

Test administration. The instrument was administered as instructed in the directions provided by the author of the test. It was assumed that adequate and appropriate precautions were identified in prior studies. In addition, the test was scored as by the directions provided.

Subjects. The subjects tested were assumed to be typical of youth in general and not at-risk in any special way.

Definitions¹

Self. The notion of self exists in the mind and is separate from that of the body. There is a conscious and unconscious aspects of the self (Cooley, 1902).

Self-concept. The description of who or what we are to ourselves stems from internal experiences and external (feedback) sources. This is the *cognitive* part of self-perception (Hamachek, 1992, p.31).

Self-esteem. Self-esteem is a feeling of self-worth, competency, and personal pride; it is the evaluative part of self-concept, the *affective* part of self-perception (Hamachek, 1992, p. 31).

Self-confidence. Self-confidence is the trust and belief in one's own trustworthiness and self-reliance (Reber, 1985).

Challenge (ropes) course. A series of individual and group physical challenges constructed out of ropes and features of a particular natural environment that require a combination of teamwork skills and individual commitment to achieve or complete. (Stopha, 1994).

Debriefing. A discussion of what happened for each participant and the group as a whole during an event. Typically topics can include assumption and development of leadership roles, styles of communication used, group responses to suggestions, and feelings about the end result (Stopha, 1994).

¹ The definitions used here correspond to the definitions used by Harter (1988c), the author of the standardized test used.

CHAPTER TWO

Review of the Literature

This review of the literature was developed to provide an understanding of self-esteem as a concept and the use of challenge programs as an intervention tool to increase self-esteem in adolescents. The past century has provided numerous theories and empirical facts related to self-esteem. Still, self-esteem research continues to be a subject of growing interest for social psychologists.

The Individual's Sense of Self

Evolution of Self

Perception of the self includes several varying self-identities, such as self-esteem, self-concept, self-image, and self-presentation. The notion of self has been a controversial issue for a number of years (Frey & Carlock, 1984; Goldberg, 1986; Hamachek, 1992). Self has played a significant role in various cultures such as those of China and Japan (Fairbank, Rischauer, & Craig, 1989) and in American Indian tribes (Harter, 1985) in respect to religion, education, and health practices. According to some cultures, the self is only the mind while in others it is mind and body (Sherif, 1976). Ideas of leaving the body during meditation or after death reinforce the idea of mind and body as being separate (Canfield, 1990).

The emergence of the self as a knower and a doer was introduced in psychological literature in the early 1900s. The self was assumed to exist in the mind and to relate to a distinction between consciousness and self-consciousness. Consciousness was defined as

the ability to answer to certain experiences such as those of pain or pleasure, and self-consciousness referred to recognition or appearance of one's self as an object in one's mind (Cooley, 1902). James (1961, p. 44–48) spoke of material (body and property), social (recognition from others), and spiritual (active-feeling states of consciousness) parts of the self.

Construction of Self

The process of constructing one's self is explained through social-psychology because the self develops as a result of a person's interaction with others; it is a social-cognitive construction (Arkoff, 1988; Santrock, 1993). Self-construction begins to be assessable at an age of 8 months when an infant starts to realize that certain objects are separate from self (mother, rattle), and self is a continuing object that can be identified (Hamachek, 1992, p.5). Construction of self is a reflective way of developing a mental sense of one's own reality, as the person appears to him or herself and as she or he appears to others (Branden, 1994). Cooley (1902) inspired others (Hamachek, 1992; Mead, 1934) to understand that the self was affected by the perceptions and regard others have of the individual and introduced the "looking glass self concept," a social view for the construction of self. In other words, one's self mirrors the mental image people reflect back when they interact with a person (Arkoff, 1988).

Self-concept. Self-concept has been defined as self-descriptors (Vallerand, Pelletier, & Gagne', 1991), what a person thinks about him or herself (Aldridge & Clayton, 1990), and the cognitive part of self-perception (Hamachek, 1992). It is how one

defines who he or she is and answers the question, “Who or what am I” (Hamachek, 1992). At 5 years of age, the basic foundation of how self will grow and how self-concept will develop is established. Children place themselves into categories — sex, height, weight, age, intelligence, and so on, as they learn new ways to categorize people and objects (Canfield & Wells, 1976; Hamachek, 1992, p.6; Harter, 1988b). The self-concept is constructed of several categories and roles; it is *multidimensional* (Harter, 1985; James, 1963; Marsh, 1994). The self-concept, although flexible to some point, becomes stable over time (Block & Robins, 1993; Hattie, 1992; Marsh, Richards, & Barnes, 1986). Thus, as an individual grows into a cognitively mature adult, the concept of the self generally becomes more stable, changing less abruptly.

Self-esteem. As self-concept is the cognitive part of self-perception, the affective counterpart is self-esteem. Most social-psychologists agree upon the definition of self-esteem in approximate terminology. Harter (1992b) referred back to James (1961) and Cooley (1902) to create a combined hypothesis of how self-esteem is built, a hypothesis that would explain all aspects of self-esteem. Self-esteem is a personal and social construction that has several independent domains (physical, social, cognitive) (Harter, 1992b), and self-esteem reflects a person’s evaluation of worth of his or her own self-concept. Early on in the study of self-esteem, in the late 1800’s, James (1961, p.54) wrote that, “Our self-feeling in this world depends entirely on what we back ourselves to be and do. It is determined by the ratio of our actualities to our supposed potentialities.” Cooley (1964, p.184) defined self-feelings by “three principal elements: the imagination of

our appearance to other person [the looking-glass self]; the imagination of his [or her] judgment of that appearance [self-image], and some sort of self-feeling, such as pride or mortification.” Therefore, self-esteem feelings are brought about by our actions (James’ hypothesis) and the imagined effect of what others think us to be (Cooley’s hypothesis). In 1990, the California Task Force to Promote Self-Esteem and Personal and Social Responsibility (p.1) put forth its official definition of self-esteem: “appreciating my own worth and importance and having the character to be accountable for myself and to act responsibly toward others.” Hamachek (1992) defined self-esteem as a feeling of self-worth, competency, and personal pride. Harter (1990) described overall self-esteem as the level of global regard that one has for one’s self as a person.

Dimensionality of self. The dimensionality of self, self-concept, and self-esteem has been questioned in the past (Cooley, 1902; Harter, 1985; James, 1961; Marsh, 1986; Rosenberg, 1979). Dimensionality is the concept of there being many selves, roles, or domains that are a part of a whole (Harter, 1990, Redfearn, 1985). In the 1960’s, most researchers studying the self, such as Coopersmith (1967), used a unidimensional theory of self-concept with the parts equally weighted and summed to create a global measure of self-worth. At that time, self-esteem was believed to be unified and independent of the changing context experienced in an individual’s life. In the 1970’s and early 1980’s, both unidimensional and new multidimensional theories were used and tested (Fox & Corbin, 1989; Harter, 1985; Marsh, 1989; Rosenberg, 1979). By the 1990s, multidimensional theory was being used and accepted by the leading researchers of self-esteem such as Fox

and Corbin, Harter, and Marsh. Multidimensional self-esteem is conceived as several differentiated domains that are not equally weighted and do not synergize or sum to a global sense of worth. Rather, global self-esteem is a domain in and of itself. Vallerand, Pelletier, and Gagne' (1991) found it possible to have high self-esteem in one domain while having low or poor self-esteem in another. In other words, an individual may feel highly competent and self-assured at being an engineer but feel like a failure as a father or mother. Therefore, a person may have a high global self-worth, and varying degrees of self-worth in specific domains.

As the cognitive ability of an individual grows, the integration of multiple concepts of the self occurs in conjunction with increases in the number of roles one plays (Harter, 1988a). Harter (1990) suggested that in early childhood the child could differentiate between four domains of self-concept: cognitive, physical competence, peer acceptance, and behavioral conduct. As an individual matures, the self becomes more complex and the number of differentiated domains increases. The domains that are the most salient in an individual's life develop and modify as life circumstances and concerns alter and change (Harter, 1990; Marsh, 1994). Self-esteem may vary according to different skill domains or areas of competence (Santrock, 1993), depending on the individual. The generalized titles Harter (1990) used are most common. Refer to Figure 1.

An additional concept of multidimensionality being tested in the 1990s was the division of domains into hierarchies (sub-domains) that were specific to that domain (Fox & Corbin, 1989; Marsh, 1994). For example, the physical self-concept was divided into

Early Childhood	Middle/Late Childhood	Adolescence	College	Adult
Cognitive competence	Scholastic competence	Scholastic competence	Scholastic competence	
			Intellectual ability	Intelligence
			Creativity	
		Job competence	Job competence	Job competence
Physical competence	Athletic competence	Athletic competence	Athletic competence	Athletic competence
	Physical appearance	Physical appearance	Physical appearance	Physical appearance
Peer acceptance	Peer acceptance	Social acceptance	Social acceptance	Sociability
		Close friendship	Close friendship	Close friendship
		Romantic appeal	Romantic relationship	Intimate relationship
			Relationship with parents	Nurturance
Behavioral conduct	Behavioral conduct	Behavioral conduct	Morality	Morality
			Sense of humor	Sense of humor
				Household management
				Adequacy as a provider
	Global self-worth	Global self-worth	Global self-worth	Global self-worth

Figure 1. Self-esteem Domains by Stage of Life.

four physical sub-domains (bodily attractiveness, sports competence, physical strength, and physical conditioning/exercise). The number of sub-divisions increase with the cognitive ability to understand more complex structures. Individuals slowly build competence in salient elements that contribute to a specific sub-domain (Fox, 1990). For

example, to be a good baseball player (a larger domain), one needs to hit, run, catch, field, and throw (sub-domains or hierarchies). One may consider him or herself to be a good player if he or she has high competence in one area (hitting) while continuing to build in other areas (fielding).

According to Ross (1992), which domains of a person's life would become important parts of that individual's self-esteem were very likely a function of personal values. The society in which one lives also influences which domains will have greater importance. Harter (1990) referred to this tendency to personalize self-esteem as developing *domains of importance*. Marsh (1994) determined that the general feeling of self-worth would not be greatly affected by low self-competence in a domain that was considered to be of little importance to the individual, but self-worth could be greatly affected in a domain of importance. Adolescents have the highest self-esteem when they perform competently in domains important to the self (Santrock, 1993).

The Formulation of Self-Esteem

Cooley's (1902) idea that self-esteem is enhanced through what he termed the "looking-glass" is linked to present conceptions of overall or global self-esteem. One's global sense of worth as a person is reflective of the acceptance and regard from others, in other words, support from parents, and support from others who are perceived as significant in one's life, and feedback from society.

James (1963) clarifying the process, formulated a more elaborate understanding of self-esteem. He hypothesized it to be reflected in the ratio of successes to pretensions.

Successes were explained to be situations that the individual perceived as adding worth as a person or in a specific domain, and pretensions was a word for expectations or objectives set by the individual. An individual's level of self-esteem, then, would be a ratio equal to the number of goals set for him or herself divided by the number of successful outcomes from those goal-directed experiences. Harter (1990, p.74) explained this as "the value that one places on success within each competence domain." Harter (1992b) also concluded that the two concepts by Cooley and James could be combined to explain levels of self-esteem for individuals. This study used both Cooley's and James' postulations to explain levels of self-esteem as did Harter (1992b). Thus, self-esteem is determined by a combination of the regard one receives from others and a ratio of goals set to goals successfully met or the building of competence and confidence through experience.

Nurturing Self-Esteem through the Human Life Cycle

Infancy and early childhood. Infants are born without self-concept or esteem (Frey & Carlock, 1989; Harter, 1988a). The first and most significant influence on the development of self-esteem comes from the major parental figure (Canfield & Wells, 1976; Frey & Carlock, 1989; Marston, 1990). Coopersmith (1967) suggested clearly defined limits, parental warmth, and respectful treatment as key ingredients to building healthy self-esteem for children. McKay and Fanning (1992) noted inflexible rules and expectations within the family would build personal attributes such as perfectionism, extreme vulnerability to criticism, and nonassertiveness that all have a negative impact on self-esteem. Although the child cannot verbalize a global sense of self-worth in early

childhood, it is there (Harter, 1988a). In addition, the child cannot cognitively differentiate between the ideal and real self-image before the age of seven years.

Later childhood. As the child grows into later childhood, others in his or her environment begin to influence the development of self-esteem. When attending school, teachers and peer-classmates become the second major influence on the child. Adults and peers from religious groups, sports teams, and community activities become significant influences who can support and encourage or weaken and defeat the self-esteem of the children they influence (Canfield & Wells, 1976). Self-worth of the individual is based on his or her perception of the regard which significant others have toward him or herself, the looking-glass self (Cooley, 1964). Using this regard as feedback, the child compares and ranks him or herself to others within the various groups in which he or she belongs.

Adolescence. By the time the youth has reached adolescence, cognitive ability to differentiate between various selves has developed due to the mental construction from extensive sub-domains of experience. The adolescent receives feedback from family, peers, and society (television, rock videos, magazines, radio) (Harter, 1990). Youth use feedback to engage in social comparison; that is, they compare themselves to the other individuals within the groups they identify with and rank themselves. In addition, they compare and rank the groups in which they associate with to other groups.

Adolescence is a time of emerging concerns about social and sexual competence (Csikszentmihalyi, 1993; Erikson, 1980). Responsibility and commitments are heightened and roles are redefined (Harper & Marshall, 1991). The question of “What should I

become” is contemplated. The physical body is continually changing biologically and physically as maturation is approached. The combination of these cognitive, social, and physical changes leaves the self-concept, self-image, and self-esteem vulnerable. This complex attention to self, often referred to as a preoccupation, requires a large amount of psychic or mental energy. Therefore, the more negative their thoughts, the more drain on their mental energy (Csikszentmihalyi, 1990). Harter (1990) noted that conditional parental support influenced the youth’s self-esteem in the domains that were important to the parents. Essentially, adolescents may experience a decrease in self-esteem if competence is judged to be lacking in a domain of importance to the parent, even though that domain may not be important to the youth (Marsh, 1994).

College-aged individuals. At the college level, feedback from parents, others whom an individual holds in high regard, and the whole of society becomes less influential. Individuals begin to rely on relative increases in competence and reaching personal goals to assess self-esteem. Although regard from others still influences self-esteem, internal sources play a larger part in giving feedback. The number and division of sub-domains will vary with the life circumstances of the individual (Hopkins & Klein, 1993). At this point in life, some young adults are still rapidly expanding their spheres of influence while others have reached their social boundaries. For most members of this group, that is, those whose lives or whose personalities are more firmly characterized and predictable, competence will rarely grow by leaps and bounds from now on through adulthood.

Adulthood. By the time an individual reaches adulthood, self-concept and self-esteem are established and fairly stable. However, the need for support from significant others, feedback from society, and opportunities to gain new competence in domains of importance still remains. Depending upon the concerns and life circumstances of the individual, the domains of importance will change. For example, domains may change during times of pregnancy, divorce, unemployment, retirement, and other major life events.

One interesting fact reported by Harter (1990) was that across all ages (8 to 50 years), the best predictor of self-worth was physical appearance. An attractive infant will receive much more attention from adults than an unattractive infant, and thus the praise for physical beauty continues all the way through life, from peers, to lovers, to work associates, and even strangers passing by on the streets. Harter went on to state that this might be due to the external display of the physical self to society; whereas, other domains are relatively internal and not obvious to others. Yet, Harter (1992b) urged individuals to let go of the mirror on the wall, to build competence in domains of importance, and to search for the true selves within them.

Flow: The Psychology of Optimal Experience

In 1975 Csikszentmihalyi first proposed a model of psychological flow based on his early research. In 1990, he produced more elaborate analysis of extensive research in his book, **Flow: The Psychology of Optimal Experience**. *Flow* was described as the sensation of being totally immersed in whatever it is a person is doing, so much so that

most other thoughts, concerns, or obligations are left behind with complete concentration on the task at hand. Now there are teams of colleagues studying *flow* around the world.

Twenty years later, support for *flow* has been reported in major scholarly journals by research colleagues on every continent. The sensation of mental flow can come from a plethora of experiences such as meditation, gambling, rock climbing, making or listening to music, reading, playing sports or games, working, exercising, criminal activities, religious practices, or just about anything. There are eight major components which characterize most flow experiences: (1) there is a challenging task which requires skill which the individual has a chance to complete, (2) the individual can concentrate on the task, (3) there are clear goals (4) immediate feedback, (5) there is a deep but effortless involvement, excluding worries and fears, (6) there is a sense of control over the task, (7) concern for the self vanishes yet self-awareness emerges much stronger afterwards, and (8) one's sense of time is altered (p.49). The reward for the task is usually internal gratitude and pride; the challenge is done for the sheer pleasure and experience in and of itself. Flow-producing experiences usually cause growth in the self, that is interpreted as a stronger self-concept.

According to Csikszentmihalyi, how parents interact with their children has a lasting effect on the kind of person that child will grow up to be (Marston, 1990), especially in learning to have flow experiences. A good relationship between parents and the child allows him or her to be significantly more happy, satisfied, and be able to cope with life situations. Five family characteristics (pp. 88-89) that positively influence a

child's ability to undertake challenging opportunities and experience flow include: (1) clarity--making expectations known and giving clear feedback; (2) centering--being interested in the child at the moment, not preoccupied with adult concerns or interests; (3) choice--the child recognizes a variety of possibilities and even the choice to break rules and face consequences; (4) commitment--trust that allows the child to become unselfconsciously involved in an interest; and (5) challenge—the parent provided increasingly complex opportunities for action. These five characteristics provide ideal training for enjoying life and help to conserve psychic or mental energy (p.65). Without consistently experiencing these characteristic patterns in everyday life, interacting with family members or perhaps others held in high regard, the child may not learn to see opportunities for challenge in a positive light or experience flow and, therefore, will miss the growth and affirmation of self that it brings (Covey, 1990).

Cycles of Hopelessness and Competence

If the method for increasing self-esteem in domains which are important is known, why is it that so many adolescents still have poor self-esteem? The answer may be, as mentioned previously, that the resources of feedback and support, or the opportunity for challenge that can result in perceived success are not available enough. A model of the self-development process was developed to integrate theoretical structures by Csikszentmihalyi, James, and Cooley. The model presented in Figure 2 demonstrates the building of the self through social feedback and the two cycles of hopelessness and of building competence. These cycles provide an integrated schemata of mental processes

Figure 2. Aghazarian Model of Self-Esteem Development. Model incorporates Cooley's Looking-glass self, James' self-esteem = pretensions/successes, and Csikszentmihalyi's conditions for flow.

that Csikszentmihalyi (1990) has theorized and studied empirically to explain optimal experience. The first move in the process of building self-esteem that a person confronts is the decision to create and take on a task in a program, hobby, class, job, or other situation which is perceived to offer some challenging goal to the self. Challenge-decision is the most crucial of all steps. It is the dividing point where an individual can choose optimistically, taking a challenging course of action which would lead to a cycle of competence, or choose to take no action at all or a non-challenging action which would lead to a cycle of hopelessness.

Cycle of Hopelessness Due to Failure to Act

The choice not to take on the challenge opportunity is made for several reasons: fear of failure (Mack & Albon, 1983); fear of rejection (McKay & Fanning, 1992); unavailable or insufficient external or internal resources such as time, money, psychic energy, skill, or information about the opportunity (Harter, 1992a); or inexperience at making decisions for the self (CA Task Force, 1990). However, no matter the reason, the outcome is the same. A decision to avoid a new challenge and risk trying new skills or methods or perfecting existing techniques or ideas detracts from self-development and assessments of competence, self-image, self-esteem, or self-concept (Hart & Silka, 1994). When looking to society for feedback in this case, more often than not, the information about one's self will be negative and unsupportive. Without a support system to renew or build faith and hope, the individual more willingly makes the same decision to take the easy way out the next time around. Thus, the cycle of hopelessness is continued. In fact,

the cycle, if continued long enough, may decrease levels of self-esteem, possibly leading to depression and/or suicidal conceptions.

Cycle of Hopelessness Due to Inappropriate Goals

If the decision is made to take on a task, seeing it as an opportunity for challenge and growth of some sort, the next move is determining the goal (expectations or pretensions) of what will happen. Expectations that are set too high or too low will often lead to a perceived sense of failure, and the individual mentally courses through the consequences of the cycle of hopelessness and negative self-esteem (CA Task Force, 1990; Mitten, 1986; Steffenhagen & Burns, 1987). The same result can occur if the individual's goals are too high for actual abilities due to an inflated sense of self-esteem or the inability or inexperience to judge the relative difficulty in a situation. Unaccomplished goals, therefore, are also a cause for perceived failure and anxiety (Csikszentmihalyi, 1990), and the self is deemed inferior (Baumeister, Heatherton, & Tice, 1993; Coopersmith, 1967). For example, students who have a goal of earning straight A's perceive themselves as inferior and unworthy if a B grade is earned. Thus, the question "Why would he commit suicide? He had everything going for him" is often answered by unachieved or unachievable goals. If goals are set too low, the individual does not reach beyond a previously established, dependable comfort zone (Roger & McWilliams, 1991a). Csikszentmihalyi (1990) noted that if the experience is either too unchallenging or unachievable it will turn sour, causing boredom or anxiety respectively. The unchallenging task has the same effect as the avoided challenge and the overwhelming challenge: no

task has the same effect as the avoided challenge and the overwhelming challenge: no growth, boredom or anxiety, and lack of increased competence. To experience the flow sensation, the challenge must give the individual something to strive for, yet not be demanding beyond his or her ability to grow and stretch.

Cycle of Competence Due to Appropriate Goals

When goals are set at appropriately challenging levels, a person has created an opportunity to experience the cycle of competence. Challenge develops and/or expands skills through stimulating experiences, thus building an increased sense of competence as well as confidence to choose to take on a new task or goal. A building sense of competence begins a cycle of positive effects, including increases in self-confidence, self-image, self-esteem and, at times, a feeling of joy, creativity, and total involvement in a mental state of flow (Csikszentmihalyi, 1990). When the individual looks to others for feedback, what is communicated is likely to be encouraging and positive. In addition, as individuals create a record of successful accomplishments, they are more able to deal with stress and uncontrollable challenges that life presents (Csikszentmihalyi, 1990), thus building resources against falling into the cycle of hopelessness.

Factors Affecting Self-Esteem

Factors affecting self-esteem have been heavily studied for the past fifteen years, see Figure 3. Certain factors are not within our control; many are consequences of the environment that one lives within. Factors influencing self-esteem can be positive or negative, can be intentionally cultured, and can occur at various times throughout the life

Factor	Author (s) and (date)
Age	James (1961)
Academics	Marsh & Richards (1988); Munson (1992)
Alcohol abuse	CA Task Force (1990)
Child abuse	CA Task Force (1990), (Crowder & Michael, 1989)
Crime	Crowder & Michael (1989)
Depression	CA Task Force (1990); Grubb, Sellers, & Waligroski (1993); Harter (1992b); King, Naylor, Segal, Evans, & Shain (1993); Russo, Green, & Knight (1993)
Dieting	Fox, Page, Armstrong, & Kirby (1994); Lawrence & Thelen (1995)
Drug abuse	CA Task Force (1990)
Eating disorders	Grubb, Sellers, & Waligroski (1993)
Gender	Henderson & Bialeschki (1986); Josephs, Markus, & Tafari (1992); Long (1993); McRae (1991); Russo, Green, & Knight (1993); Simonds (1992); Stein, Newcomb, & Bentler (1992); Steitz & Owen (1992); Tschirhart-Sanford & Donovan (1984)
Gifted Adolescents	Branden (1994); Callahan, Cornell, & Loyd (1990); Csikszentmihalyi, Rathunde, Whalen, & Wong (1993); Frey (1991)
Happiness	Csikszentmihalyi (1993); Trethowan (1983)
Over-inflated Self-esteem	Baumeister, Heatherton, & Tice (1993); Hopkins & Klien (1993)
Humor	Hamachek (1992); Overholser (1992)
Locus of control	Hattie (1992); Langsner & Anderson (1987); Tang, Sarsfield-Baldwin (1991a, 1991b); Wiggins & Wiggins (1992)
Loneliness	Davis, Hanson, Edson, & Ziegler (1992)
Outdoor Adventure	Ewert (1982); Hart & Silka (1994); Hazelworth & Wilson (1990); Iso-Ahola, Laverde, & Graefe (1988); Kessell (1994), Marsh, Richards, & Barnes (1986)
Personality characteristics	Hong & Giannakopoulos (1994); Joubert (1990); Rose (1987); Youngs (1991)
Poverty	Crowder & Michael (1989)
Premenstrual syndrome	Catlett (1985); Johnson (1984)
Productivity	CA Task Force (1990)
Quality of life	Dauw (1980); Hong & Giannakopoulos (1994); Spreitzer & Snyder (1989)
Race	Dimmitt (1995); Hudely (1995)
Sexual abuse	CA Task Force (1990); Damon (1989); Levine (1994)
Sports	Spreitzer & Snyder (1989); Hines & Groves (1989); Smoll, Smith, Barnett, & Everett (1993)
Suicide	CA Task Force (1990); Harter (1987); Stivers (1990)
Teen pregnancy	CA Task Force (1990); Plotnick (1992)
Violence	Crowder & Michael (1989); Robertson (1994)
Weight training	Melnick & Mookerjee (1991)

Figure 3. Factors Affecting Self-Esteem.

cycle. The positive impact of some factors can strengthen self-esteem, reinforcing self-concept and fortifying the self against future situations with negative consequences.

Factors which generally result in a positive impact on self-esteem create a sense of high quality-of-life, personal satisfaction, and happiness. Conversely, negative factors create poor self-esteem and a questioned sense of self-concept. Negative impacts on self-esteem may result in long-term consequences which require treatment by therapists or counselors to restore a strong sense of self.

During adolescence, the discovery and decision of who I am and what shall I be in life are being formulated mentally by the developing youth (Csikszentmihalyi & Larson, 1984; Erikson, 1968; Harter, 1992b; Vander Zanden, 1993). At this influential stage of life, an experience, building confidence and courage may sway adolescents to reach for higher goals and to consider themselves worthy and respectful.

Prevention and Intervention Programs

Programs designed to increase self-esteem for the average teenager are varied. Some programs focus on increasing self-esteem through academics. Others use extra-curricular school activities; hobby and special-interest skills; adult role-experiences in politics, governance, or business; wilderness expeditions; and various other experiences. A good example is Drugs Awareness Resistance Education (D.A.R.E.) which is a cooperative program between law enforcement agencies and boards of education using the classroom setting to build self-esteem. Police officers come into the classroom once a week for 17 weeks and end the program with a field trip, often to an outdoor challenge

course, reinforcing the lessons learned in the classroom program. Other programs include: Youth in Government (YMCA program) and Go-Ape (alternative experiential education program available to all students, not just those at-risk, held on-and-off site). However, most organizations which provide extra-curricular activities focus on self-esteem only as a supplement to improve or expand their main-focus, like the Boy's and Girl's Clubs, after-school youth sports, summer camps, and some YMCA and YWCA programs.

Self-esteem is a major element of other programs which serve teens in intervention through positive development (Kimball, 1986). Commonly known programs include 12-step programs, self-help groups, individual psychotherapy, and wilderness therapy. These programs usually require the assistance of a trained or experienced individual educated in some field of self-esteem development with the ability to facilitate healthy self-development for others (Bank, 1985).

Challenge (Adventure) Programs

Participation in adventure programs has increased in the last ten years. These programs usually offer some type of risk-recreation challenge such as rock climbing or white water rafting (Iso-Ahola, Laverde, & Garaefe, 1988; Meier, Morash & Welton, 1987). Bertolami (1981) described the use of these programs as a modern rite of passage to provide a signal for adolescents that they have become adults. The increasingly unmet self-esteem needs of today's youth can be partially met through most challenges in the adventure programs (Kimball, 1986; Wright, 1983).

To understand how contemporary adventure programs emerged, a historical review of programs has been made. Programs that were reviewed shared many of the same goals such as promoting team-building, trust-building, self-esteem, confidence, intimacy, and personal growth (Levine, 1994).

Outward Bound was originally created in Wales in 1941, by Kurt Hahn, to train sailors against attacks by the Germans in World War II (Outward Bound, 1996). In the 1950's, the Outward Bound concept of coping personally with challenges presented by weather, natural features, and group members spread across the world to Germany, Nigeria, Kenya, Australia, Malaysia, and the United States (Fort Miley Adventure Ropes Course Leader Manual, 1992).

Bertolami (1981, p.3) quoted the Canadian Outward Bound Mountain School Staff Manual (1980) which stated:

Outward Bound is an educational process dedicated to the principle that the individual develops self-confidence, concern for others, and self-awareness....when confronted by challenging, shared experiences based on adventure in the natural environment and through a learning process based on self-discovery and small group interactions.

According to the Fort Miley Adventure Ropes Course Leader Manual (1992), the first U.S. program based on Outward Bound was "the Break," a physical education program that stressed personal improvement over competition against others. The Break program was instituted in Massachusetts in 1952. In 1962, the Colorado Outward Bound School opened, including skills such as rock climbing, rafting, backpacking, mountaineering,

leadership development, and low-impact camping. Outward Bound programs grew in the U.S. in the 1960's as tools for experiential education in conventional education settings. Other programs similar to Outward Bound using the same cooperative structures were developed in the 1970's, such as the National Outdoor Leadership School (NOLS) and the Wilderness Education Association (WEA).

In the late 1970's what differentiated programs was reliance on centrally located, specially constructed activity grounds mainly in the out-of-doors. Programs such as Project Adventure were adapted from outdoor adventure programs. Project Adventure was designed as an experiential learning program for high school settings. It had several learning goals one of which was to increase an individual's sense of confidence and self-esteem. This program focused primarily on challenge-course features along with supportive skills such as leadership development and environmental awareness. Similar courses came and went between 1975 and 1995. They included Outdoor-Adventure Education Process, Benefits of Leisure, Mediating Processes Between Situational Triggers and Outcomes, and Personal Growth Through Adventure (Kiewa, 1994).

Like Project Adventure, other challenge courses have been established around the world. Each course has its own identity and atmosphere, serving various target markets: youth-at-risk, women, therapy groups, corporations, military, state agencies, grade school and high-school students, teams and clubs. Some run year-round; others operate just during the dry months. They are privately owned, public, not-for-profit, and non-profit organizations.

Challenge Courses

Stopha (1994, p.102) described a challenge ropes course as, "a series of individual and group physical challenges that require a combination of teamwork skills and individual commitment. Constructed of rope, cables, and wood, courses are built outdoors in trees or using telephone poles and indoors in gymnasiums." The challenges built close to the ground and not requiring the use of a safety harness are referred to as low elements. Those built in trees or telephone poles, approximately 30 to 70 feet in the air, requiring a safety harness, are referred to as high elements.

A typical challenge course is a one-day event. There are usually between 20 to 40 participants and two to four leaders, which at times are divided into small groups of 10 to 15 with one or two leaders. The day begins with ice-breakers, name games, and warm-up exercises. A leader explains the concept of Challenge-by-Choice (being able to choose to participate actively or passively) and discusses physical and mental safety practices to be used for the day (Schoel, Prouty, & Radcliffe, 1988). Goals for the day are set by the group. Techniques and commands for spotting (backing each other up) are practiced for safety. A leader-guided blindfold walk begins the atmosphere of intimacy and leads the group to the area where the low-elements are located. The low-element challenges are designed for individuals, partners, and groups. Debriefings are facilitated by trained leaders throughout each of the challenge elements to bring awareness of personal growth and focus group's attention on the process of successfully engaging in the experience. Lunch is a time for reflection and sharing through story telling. After lunch, the high

elements are used to test the trust-, intimacy-, and risk-threshold of the group and its individuals. The day ends with a large-group, low-element activity for everyone and debriefing by the leadership team (Stopha, 1994).

Challenge courses are used as agents of change. Goals include “overcoming emotional and mental blocks more than physical ones” (Levine, 1994, p.179); sparking changes in life style and attitude, leading to higher self-esteem; building healthier coping strategies and a sense of control over one’s personal life (Kessell, 1994); carefully crafting initiatives that promote new, more self-efficacious behaviors; and building confidence to be assertive while reaching for accomplishment (Hart & Silka, 1994).

Essential components of challenge programs. There are a few components that are considered essential for successful results in raising self-esteem through challenge programs. The following are the more commonly agreed upon by program facilitators and researchers.

Personal control (Challenge-by-Choice). Challenge-by-choice is the choice to participate and to have an active role in decision making, goal statements, and contractual agreement in order to increase the commitment of the participant (Kiewa, 1994; Marsh & Richards, 1988). The increased sense of control over one’s situation leads to an enhanced internal feeling of control, especially when expectations are stated at the beginning of a program (Csikszentmihalyi, 1990; Mitten, 1986). If the choice to participate is made for the participant without his or her consent, perhaps by a parent, probationary officer, court judge or counselor,

the participant may not attribute success or competence as originating from him or herself, and, thus, self-esteem may not increase.

Atmosphere. The atmosphere must be presented as safe: physically, emotionally, and mentally so participants can focus on the challenge to be accomplished rather than worrying about threats of bodily or psychological harm that would be out of their control. Safety for physical body is achieved through spotting exercises and responsibilities, rock climbing ropes and harnesses. Emotional and mental safety are established through social acts of acceptance, encouragement, acknowledgment of presence (Stopha, 1994), respectful treatment, feeling as an important member of the group (Coopersmith, 1967), self-acceptance, caring for one's personal needs (Mitten, 1986), cooperation (Kiewa, 1994), and trust (CA Task Force, 1990; Levine, 1994); along with the usage of oral safety commands. Safety for the expression of feelings (CA Task Force, 1990; Kiewa, 1994) and a level of intimacy needs to be present for individuals to have unconcern for self and to be able to explore personal feelings.

Process: Setting goals with a chance of succeeding. The process involves a progression of risk-taking behaviors and feedback which leads the group and individuals to build new skills and find new coping strategies at a safe pace (CA Task Force, 1990; Hart & Silka, 1994; Levine, 1994). Hence, the progression from games to low-elements to high-elements is used. Activities and group members are selectively placed to encourage positive interaction between members

(Mitten, 1986). The stress from perceived risk should be maintained at a healthy level by discussing fears and facing the mystery about each activity (Miles, 1986). Careful programming (Miles, 1986) with a flexible itinerary (Mitten, 1986), sensible structure (CA Task Force, 1990), and learning metaphors appropriate for the needs of the group (Hart & Silka, 1994) are essential. The organization of the program has a large effect on its outcome (Hazelworth & Wilson, 1990).

Skilled leaders. The leaders facilitating the course are trained in several areas (group process, team building, goal setting, and reflective listening). Leaders aid the group and individuals to determine the level of challenge to be taken and help translate that decision into a goal. Leaders continually observe and evaluate the process used in achieving challenges (Marsh & Richards, 1988) to keep the focus on process not product and encourage positive comments between group members (Banathy, 1963). Effective debriefing skills where the “facilitator acts as a catalyst that disturbs the system” (Hart & Silka, 1994, p.113) are necessary to teach participants how to transfer challenge experiences to daily life (Levine, 1994). By helping participants to interpret and learn from their experiences (Levine, 1994), leaders empower participants to recognize other areas of their lives where the newly developed skills may be of use (Drury & Massari, 1994).

Alternatives to Challenge Programs

If programs are not available to meet the self-esteem needs for today’s youth, they will find alternative means to meet their needs. However, without the essential design

components, the alternatives can not provide the same healthy outcomes as the adventure programs. Adolescents will seek challenge, novelty, and excitement in what society refers to as delinquent behaviors (Robertson, 1994): drugs, alcohol, sex as rule-breaking and as rite of passage, and vandalism. There is a need to escape into activities where they can move into an altered state of mind with an unconcern for self (Csikszentmihalyi, 1990). Just as painters, musicians, and athletes profess, it is the process itself, not the product, for which youth yearn (Csikszentmihalyi, 1993). However, because society does not value these alternative behaviors, and in fact deems them as a waste of psychic or mental energy, negative feedback is given. To receive the social support youth need, either they turn to unhealthy peer groups, gangs, or they withdraw deep within themselves, experiencing unhealthy states of depression or suicidal tendencies.

Gangs appear to be a prime alternative. They provide many of the components needed to build self-esteem. According to Robertson (1994), gangs encourage risk-behaviors, offer new skill challenges (gun usage, lying, breaking and entering, robbery), initiation challenges, spontaneity and ritual, a sense of belonging, intimacy, a significant part in decision making, and group leaders. Members are given adequate amounts of social support and encouragement along with positive regard from their chosen gang-family. Self-esteem does increase as a result of gang activity (Robertson, 1994).

Assessing Self-Esteem

The standardized tools used to assess self-esteem generally rely on self-reports about one's own beliefs, nature, behaviors, or values, and/or estimates from others close

to the individual like parents, teachers, and coaches. Researchers and developmental psychologists use quantitative methods such as standardized questionnaires that have an acceptable record for reliability and validity, as well as qualitative methods such as interviews and journal interpretations. Most researchers find it best to use a combination of methods to assess data for a richer picture (Bogan, 1988). In addition, Marsh, Richards, Johnson, Roche, and Tremayne (1994) suggested using differing assessment tools and differing methods to analyze data (a multitrait-multimethod analysis).

Paper and pencil self-report questionnaires are the most widely used method for assessing level of self-esteem. According to Harter (1988) some of the more commonly used assessment questionnaires are the Coopersmith Self-Esteem Inventories (SEI) (1987); Piers-Harris Children's Self-Concept Scale (1969), Rosenberg Self-Esteem Scale (1979), Self-Perception Profile for Children (Harter, 1985), and Self-Description Questionnaire (1987) described in Figure 4. The best test to use depends upon the purpose of the study and the desired outcomes, along with age of the subjects and desired dimensionality. Tests vary in relation to age of the subjects to be studied, the depth of assessment, and the ease of modification. Tests for young children are short in length and often use short words or pictures to convey meaning in ways appropriate to their cognitive level of development and limited ability to verbalize self-esteem. In contrast, tests designed for adolescents are likely to include assessments of romantic appeal and scholastic competence. Some tests, like the Self-Perception Profiles by Harter, can be easily modified to other languages; special populations, such as persons who are disabled;

Author	Date	Title	Dimensionality	Age of Subject	Number of Items	Number of Domains	Title of Domains
Coopersmith	1967	Coopersmith Self-Esteem Inventories	Unidimensional	Ages 8-15	58	4	school-academic, social-peers, home-parent, general staff
Piers & Harris	1969	Piers-Harris Self-Concept Scale	Unidimensional	Grades 4-12	80	6	behavioral, intellectual and school status, physical appearance, anxiety, popularity, happiness/satisfaction
Rosenberg	1979	Rosenberg Self-Esteem Scale	Unidimensional	Adolescents	10	1	global self-worth
Harter	1988	Self-Perception Profile for Adolescents	Multidimensional	Grades 9-12	45	9	scholastic competence, social acceptance, athletic competence, physical appearance, job competence, romantic appeal, behavioral conduct, close friendship, global self-worth
Marsh	1987	Self-Description Questionnaire	Multidimensional	Ages 6-11	64	8	physical abilities, physical appearance, relationships with peers relationship with parents, reading, math, all school subjects, general self-concepts

Figure 4. Self-Esteem Assessment Tools for Youth.

or for assessing sub-domains of a single domain, like Fox and Corbin's Physical Self-Perception Profile. Tests vary in the depth of assessment. For example, Rosenberg Self-Esteem Scale is a 10 item questionnaire, assessing only the global sense of self-worth, and results in a uni-dimensional tool (Harter, 1988). In contrast, the Self-Perception Profile for Adults, a questionnaire of over 45 items which assess 13 varying domains separately, is multidimensional. Selection of test can be narrowed down significantly by simply determining the age of the subjects and whether uni- or multi-dimensionality should be assessed.

Summary

Self-esteem begins to develop at birth by regard from our parents. As a child grows, the regard from others who are respected influence self-development. As the child matures in adolescence, trying to discover and decide "Who am I" and "What should I become," experiences which involve challenge, confidence, and competence influence self-esteem. The stability of self becomes greater as the youngster moves into adulthood. Therefore, in the years after college, influencing or improving self-efficacy is much more difficult. Self-esteem is greatly influenced through social feedback and competence building through experiences. Since challenge courses offer an opportunity for improved self-esteem through these avenues, and the stage of life at adolescence is very susceptible to social influences, offering challenge courses to high school students may improve society by improving the individuals who build society.

CHAPTER THREE

Method

This chapter describes the details of the study to aid the reader in understanding the research and to simplify future investigations or replications of this study. It explains the research design, subjects, instrumentation including validity and reliability, procedures, and data-analysis procedures. The methods selected were designed to test the influence of the Heron Lake Challenge Course (HLCC) one-day program on level of adolescent self-esteem as measured by the Self-Perception Profile for Adolescents (Harter, 1988c) and by personal comments. The null hypothesis was that the effect of the HLCC program, as the independent variable, would cause an increase in level of self-esteem, the dependent variable, for participants.

A positive influence on self-esteem is a major focus of the HLCC. This program had never been formally studied although daily evaluations had been made by participants since the course opened. The evaluation questions used were of an open-ended nature, referring to the effectiveness of the program and how the participants felt that the program may have helped him or her.

Research Design

This was an experimental, deductive case study, using a convenience sample of four high school classes to form a control and an experimental group. Both quantitative and qualitative measures were used. Self-esteem was measured quantitatively, using the Self-Perception Profile for Adolescents (SPPA) (Harter, 1988c). Tests were administered

three times: before the challenge course (pretest) in the classroom, following the program (posttest) at the course site for the experimental group and in classroom for the control group, and 3 weeks after the course (follow-up test) in the classroom. Self-esteem was also assessed qualitatively for the experimental group by analysis of the personal comments made during the three testing times.

Subjects

There were 95 subjects in the original sample. Subjects were male and female, attending a public high school in Napa, California. Most were 11th graders, and were of normal development for their life-cycle stage. The sample consisted of four classes instructed by the same teacher. Two classes of students participated in the ropes course as the experimental group, and two classes did not participate and acted as the control group. The two classes composing the experimental group participated at the ropes course on separate days because the course is limited to 25 participants.² The subjects participated on a voluntary basis, provided signed parental permission slips were returned, see Appendix A, and were allowed to drop out of the study at any point if they desired.

Mortality

Self-esteem in both groups was measured at the same time therefore, the only internal threat to validity not controlled was mortality. The drop-out rate could have been higher or lower for the experimental group due to exposure to the challenge course, leaving the two groups dissimilar. However, a t-test of the experimental and control

subjects' pretest scores supported the idea that any loss of subjects due to mortality was not significant.

Instrumentation

Each student questionnaire contained a cover sheet with questions concerning demographics and the SPPA. Questionnaires given to the experimental group also included space for personal written comments. The posttest and follow-up test had the question order rearranged to avoid test deterioration.

The self-esteem instrument utilized was the Self-Perception Profile for Adolescents (Harter, 1988c) composed of nine sub-scales (scholastic competence, social acceptance, athletic competence, physical appearance, job competence, romantic appeal, behavioral conduct, close friendship, and global self-worth). The SPPA was designed to measure each of the nine domains separately. There were five questions in each domain making a total of 45 questions. Questions were formatted so that the subject first decided which of two statements he or she felt were more like him or herself, and then rated the statement to be "really true" or "sort of true" for him or herself. For example:

Really True for me	Sort of True for me				Sort of True for me	Really True for me
		Some teenagers do very well at their classwork.	BUT	Other teenagers don't do very well at their classwork.		
_____	_____				_____	_____

² For safety purposes, many ropes courses limit the number of participants. HLCC has established its limit at 30 participants.

There were four possible choices for each item. Responses to the items were scored 1, 2, 3, or 4 with 1 representing low self-esteem and 4 high self-esteem. Scores from the five questions in each domain were added to create a mean competency score for each of the nine domains. Each subject received nine separate self-esteem competency scores, creating an individual self-esteem profile (See Appendix B). The sub-scales were not designed to be summed together, but analyzed independently, thus providing a multidimensional view of the adolescent's self-esteem. The multidimensionality of Harter's instrument allowed the researcher to observe the general self-worth scores separated from the other self-esteem domains.

A second part of the test measured how important each of the domains were to the subjects. It was entitled *How important are each of these things to you* and had 16 questions, two for each domain, excluding the global self-worth domain (see Appendix B). Questions were formatted in the same manner as the competency questions. The two questions were also scored 1,2,3,4 and summed together to create a mean importance score in each domain. The mean score was used to determine whether or not the domain was considered important by the subject. If the mean score was 3.0 or higher, it was deemed important, with the potential to influence the subject's self-esteem. However, if the mean score was under 3.0, it was considered unimportant and less influential.³

In the analysis of the subject's profile, the competency scores were subtracted from the importance scores to create discrepancy scores. Only those domains which

achieve importance status statistically were used to calculate discrepancy scores. These scores revealed level of self-esteem for each domain, taking into consideration the importance of that domain for the subject. A negative score revealed low self-esteem, a zero score was considered neutral, and a positive score high self-esteem.

Reliability and Validity of the Instrument

The SPPA was an upward extension of the Self-Perception Profile for Children (SPPC) (Harter, 1985). Harter and her colleagues had researched self-esteem from infancy to later adulthood and found that the use of an age-appropriate test was necessary to maintain internal validity (Harter, 1987, 1988c, 1990, 1992a, 1992b). In addition, the SPPA has been modified and re-tested for reliability and validity (Hagborg, 1993; Trent, Russell, & Cooney, 1994). The children's version has successfully been translated into Spanish (Dimmitt, 1995), French (Boivin, Vitaro, & Gagnon, 1992), Dutch (Van Dongen-Melman, Koot & Verhulst, 1993), and German (Wunsche & Schneewind, 1989), and modified for use in the United Kingdom with Scottish children (Hoare, Elton, Greer, & Kerley, 1993) and children in Northern Ireland (Granleese & Joseph, 1994). Other researchers have re-tested and modified Harter's tests for specific populations such as the learning disabled (Renick & Harter, 1988), gifted adolescent girls (Callahan, Cornell, & Loyd, 1990), depressed adolescents (King, Naylor, Segal, & Evans, 1993), and for measuring specific domains (Fox, 1990; Fox & Corbin, 1989; Marsh, Richards, Johnson,

³ The decision to make 3.0 a cut off point for whether or not the domain would influence self-esteem came from the Harter's instructions for scoring the test, see Appendix A.

Roche & Tremayne, 1994; Page, Ashford, Fox, & Biddle, 1993). The SPPC has been noted as being the best tool in self-esteem assessment (Bogan, 1988).

The adolescent version was tested successfully for validity and reliability by Wichstrom (1995). He tested the original SPPA and a revised version which used a differing question format with a Norwegian sample of over 1,000 subjects. He noted that Harter's profiles occupied a central position in self-esteem research and have been widely used in a large body of research. The study clearly supported the construct validity and factorial validity of the SPPA.

Procedures

Before any part of the actual research took place, approval by the Human Subjects International Research Board at San Jose State University was granted for the study in order to identify and treat any ethical or safety concerns that might foreseeably have arisen, see Appendix C. The subjects were introduced to the study in their classrooms in Napa, California. At that time, they were informed that the study was a survey intended to investigate the effects of a challenge course on its participants, that there were no wrong or right answers, and that all answers would be confidential to the researcher and her thesis advisors. The questionnaires were numerically coded for confidentiality.

Pretest. The pretest, SPPA, was administered to the control and experimental groups on the same day, during their regularly scheduled math class. The researcher distributed the instrument to the subjects and read aloud the instructions, responded to questions, then remained available for assistance during the testing procedure. The

subjects then were asked to complete the questionnaire. In addition, members of the experimental group were asked to write down their anticipations and expectations of the challenge course on the back of their questionnaires (see Appendix D).

Intervention. Two days later, half of the subjects in the experimental group participated in the one-day Heron Lake Challenge Course program. On the following day, the second half of the experimental group participated in the program. The researcher was present to observe any unusual events or possible biases that may have influenced data reported by the subjects. It should be noted that the researcher is also a certified challenge-course leader, working at this and other challenge courses, and was serving as a leader on the study days.

Posttest. After the completion of the challenge course, and while still on site, each half of the experimental group was asked to complete a posttest and make personal comments about how his or her expectations and anticipations had been met or transformed and to record his or her feelings at the moment. The control group was administered the posttest on the following school day during the regularly scheduled classes. The same instrument was utilized as in the pretest, along with the same testing procedures, although the question order was rearranged to reduce chances of deterioration of the scale.

Follow-up test. A follow-up test was administered to both the experimental and the control groups 3 weeks after the intervention. It was viewed that, within the 3 weeks, the initial exhilaration effects of participating in the course would have worn off and any

remaining increase in self-esteem would be measured by the use of the follow-up test. Although a reordering of the questions was used to limit the deterioration for the scale, increases in scores were anticipated from gaining competency at taking the questionnaire. The researcher allowed subjects to ask questions regarding the study after the questionnaires were returned the final time.

The results of this study were made available for educational purposes. Participants, the HLCC, or others with interest had full access to the results of the study upon request, excluding the participant's questionnaires and personal written comments which were not revealed for confidentiality.

Data Analysis Procedures

Analysis of the Self-Perception Profile

Scoring the questionnaire as designed by the author provides individual self-esteem profiles including importance and discrepancy scores, see Appendix B. Individual subject scores were combined to create mean competency, importance and discrepancy scores for the experimental and control groups. Although the SPPA had nine separate self-esteem domains, being a multidimensional instrument, only the general self-worth domain was used in the t-test. Data were analyzed using a t-test of the mean gain scores (pretest scores subtracted from the posttest scores) for global self-worth for the experimental group. This parametric statistical test was chosen due to the small size of the group studied and the number of times the test was repeated (Huck, Cormier, & Bounds, 1974). The level of significance applied to statistical results was the conventional level (.05) for

social science research (Babbie, 1992). However, the alpha level was divided by two due to the t-test being used twice, once for the pretest comparison and once for the posttest comparison.

Descriptive statistics, such as mean scores and standard deviations, were used to make observations of the numerical differences between and within all domains for the pre-, post-, and follow-up tests. In addition, discrepancy scores, the importance score subtracted from the competency score, for the domains deemed important, were also observed through means and standard deviations. Competency scores were anticipated to increase with each of the tests as subjects gained skill in taking the test.

Analysis of the Personal Written Comments

Self-esteem, the dependent variable, was qualitatively examined by content analysis of the personal written comments. Constant Comparison method (Glaser & Strauss, 1967) was initially used with the addition of constant comment (Glancy, 1988). Hermeneutics, the analysis of the meaning associated with written text (Henderson, 1991), was used for further analysis. Interpretations were supported by quoting some of the original comments.

Using constant comparison each comment, phrase, and idea, was written on its own index card. Each card was also coded on the back, according to subject, group: experimental or control, and test: pre-, post-, or follow-up. Cards were analyzed independently and interdependently and sorted into groups by comparing the words being used. The researcher rearranged the cards several times into various groups looking for

patterns, themes, categorizes, and/or relationships which may emerge. It was common for some categories to be related and others to appear quite independent (Glaser & Strauss, 1967). The constant comparison method was enhanced by constant comment (Glancy, 1988) which is a technique for isolating symbolic language. Glancy (1993) noted how an outsider was uninformed and ignorant about the deeper meaning of the language used and how insiders could imply more than the universal meaning which shorthand language offers. Thus, the researcher, as a leader for the experimental group, used her insider status when looking for themes to analyze the comments for hidden meaning. On the basis of these analysis activities, a theme was generated for each group of comment cards. The number of cards per group was counted and used to convey ratios and percentages for each theme.

Once the cards were grouped and categorized by themes, hermeneutics was used to analyze the meaning associated with the written text further (Henderson, 1991). First, themes were considered for general interpretation, as an outsider would understand them. Then the researcher, using constant comment again, looked at the data as an insider to gain understanding of the hidden meanings and values behind the actual words to compare the themes to one another. Interpretations were supported by quoting original comments and relating the comments to events that had occurred within the program.

Summary

By using both quantitative and qualitative methods of analyzing the data, the study findings proved to provide richer understanding with which to interpret the data, leading

to implications for further research and replications of this study. In addition, by using more than one method for both quantitative and qualitative data analysis, the data were analyzed more completely.

CHAPTER FOUR

Analysis of Data

This chapter reports a sample description and the statistical treatment of the data collected. The dependent variable, level of self-esteem, was measured using the Self-Perception Profile for Adolescents (Harter, 1988c) and by personal written comments. The quantitative data were analyzed, using two-tailed t-tests and descriptive statistics. The qualitative data were examined by content analysis.

Sample Description

There were two groups studied, an experimental group and a control group. The two groups were comparably equal on number of subjects per group, gender, age, grade level, and ethnicity, see Appendix E. The subjects in both groups were generally white, eleventh graders, and 16 to 17 years of age. The demographics were seen as homogeneous and a limitation for the study; however, they reflected the local population in respect to race.

The original sample contained 95 subjects, 46 experimental subjects and 49 control subjects. However, those subjects who chose not to participate or did not have signed parental permission slips ($N=22$), were absent on any of the test days ($N = 20$), or did not complete a test form ($N = 23$) were eliminated from the sample. The resulting sample consisted of 17 subjects in the experimental group and 23 in the control group. Due to the high number of missing and dropped cases, a t-test was used to compare the control and experimental groups in regard to pretest scores. With an alpha of .05, the two

groups were not significantly different, $F(1, 38) = -.98, p=.333$, in terms of general self-worth.

Self-Perception Profile for Adolescents

The measurement tool, the Self-Perception Profile for Adolescents (SPPA) (Harter, 1988c), was administered three times to both the experimental and control groups. Test data were used for both inferential and descriptive statistics, shown through both tables and graphs.

Inferential Statistics

The inferential statistical analysis was done by two-tail t-tests with a probability level of .05. One test measured the mean scores of the global self-worth from the pretest for the experimental compared to the control group. The two groups were not significantly different at an alpha level of $p=.05$, $F(2, 38) = -.98, p=.333$. Plainly stated, the two groups were equal in terms of level of global self-esteem at the time of the pretest.

Another t-test was performed to measure differences between the experimental group mean gain score (posttest minus pretest) and the control group mean gain score in the general self-worth domain. With an alpha level of .05, the effect of the challenge ropes course was statistically significant, $F(1, 38) = 2.35, p=.024$. Simply put, the experimental group showed a significantly larger difference from the pretest to the posttest than the control group did in the domain of general self-worth. This significant difference demonstrated the effectiveness of the challenge ropes course as a positive intervention tool in adolescent self-esteem and confirmed the hypothesis of the study.

Descriptive Statistics

For each of the domains, the mean and standard deviation scores for competency, importance and discrepancy were calculated. These tables show scores for both the experimental and control groups for the pre-, post- and follow-up tests.

Competency scores. The mean scores in Table 1 followed several patterns in the way they increased and decreased numerically. For the experimental group, it was noted that most of the posttest mean scores increased from the pretest scores, and that the follow-up scores often decreased slightly from the posttest scores. This pattern held true for the scholastic, social acceptance, athletic, romantic appeal, behavioral conduct, and global self-esteem domains. The physical appearance and job domains varied from that pattern in that the scores continued to increase with each test. Moreover, the close friendship domain was quite interesting in that the means decreased between the pretest and posttest and then increased again for the follow-up, unlike any of the other domains.

In contrast to the experimental group, most of the control group scores followed a pattern of a numerical increase from the pretest to the posttest and then a second increase from the posttest to the follow-up test. This pattern was followed for the social acceptance, athletic, physical appearance, job, romantic appeal, and behavioral conduct self-esteem domains. The scholastic and close friendship domains followed a pattern of an increase followed by a decrease. Furthermore, the global self-worth domain was noted especially for the control group due to the continual decrease with each test.

Table 1

Mean Competency Scores

Self-esteem Domain	<u>Experimental*</u>						<u>Control**</u>					
	<u>PRE</u>		<u>POST</u>		<u>FOLLOW-UP</u>		<u>PRE</u>		<u>POST</u>		<u>FOLLOW-UP</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Scholastic	3.18	.56	3.44	.55	3.21	.59	3.14	.69	3.31	.62	3.21	.58
Social Acceptance	3.00	.48	3.16	.44	3.16	.49	3.07	.64	3.10	.62	3.22	.56
Athletic	2.42	.85	2.72	.85	2.65	.77	2.60	.82	2.71	.81	2.72	.82
Physical Appearance	2.44	.70	2.55	.75	2.67	.78	2.56	.75	2.68	.69	2.73	.70
Job	3.26	.54	3.54	.45	3.64	.42	3.43	.57	3.46	.63	3.55	.53
Romantic Appeal	2.33	.76	2.74	.65	2.55	.78	2.59	.68	2.84	.74	2.83	.65
Behavioral Conduct	3.08	.62	3.14	.57	3.13	.60	2.97	.52	3.07	.58	3.10	.53
Close Friendship	3.47	.71	3.40	.72	3.46	.81	3.33	.68	3.43	.66	3.34	.79
Global Self-worth	3.05	.66	3.32	.50	3.21	.78	3.23	.50	3.15	.61	3.12	.60

Note. Scores range between 1 - 4, with 1 representing low self-esteem and 4 representing high self-esteem.

*N = 17 **N = 23

Importance scores. The mean importance test score established what domains each of the groups deemed as important, see Table 2. A domain was deemed important if the score was 3.0 or higher, as specified by the author of the instrument in the scoring instructions. (See Appendix B). If a domain was rated under 3.0 it was considered to be unimportant and, therefore, to have a lesser effect on level of self-esteem. Therefore, only those domains that were rated important were used to evaluate discrepancy scores. The experimental group rated five of the domains, scholastic, job, romantic appeal, behavioral conduct, and close friendship, as important. The control group only rated four of the domains as important: scholastic, job, romantic appeal, and close friendship.

Discrepancy scores. Observing the mean discrepancy scores, it was noted that all of the values were negative, demonstrating low self-esteem for each of the domains, see Table 3. That is to say, both the control and experimental groups rated the importance of the domain as being higher than their competence level. In addition, the romantic appeal discrepancy scores in both groups appeared to reveal a much lower level of self-esteem than any other domain.

Personal Written Comments

Qualitative data were collected from the participants in the experimental group in the form of written comments. Only the experimental group, and not the control group, was asked to make written comments on the back-side of the questionnaires, during the pretest, posttest, and follow-up test. Therefore, the qualitative analysis was done only for the experimental group for each of the test periods.

Table 2

Mean Importance Scores

	<u>Experimental*</u>		<u>Control**</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Self-esteem Domain				
Scholastic	3.53	.67	3.59	.51
Social Acceptance	2.47	.76	2.54	.64
Athletic	2.56	.86	2.54	.82
Physical Appearance	2.97	.60	2.72	.80
Job	3.82	.39	3.57	.63
Romantic Appeal	3.29	.61	3.30	.73
Behavioral Conduct	3.18	.56	2.87	.80
Close Friendship	3.71	.53	3.46	.69

Note. Highlighted scores were under 3.0 and therefore deemed unimportant by subjects.

*N = 17, **N = 23.

Table 3

Mean Discrepancy Scores

Self-esteem Domain	<u>Experimental*</u>						<u>Control**</u>					
	<u>PRE</u>		<u>POST</u>		<u>FOLLOW-UP</u>		<u>PRE</u>		<u>POST</u>		<u>FOLLOW-UP</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Scholastic	-.35	.85	-.09	.75	-.32	.78	-.45	.80	-.27	.69	-.38	.75
Social Acceptance												
Athletic												
Physical Appearance												
Job	-.56	.61	-.28	.53	-.19	.44	-.14	.80	-.10	.59	-.02	.66
Romantic Appeal	-.96	.89	-.55	.74	-.74	.93	-.71	.95	-.46	1.06	-.47	.97
Behavioral Conduct	-.09	.51	-.04	.45	-.05	.54						
Close Friendship	-.24	.73	-.31	.77	-.25	.87	-.13	.80	-.03	.86	-.12	.94

Note. A negative value indicated low self-esteem, zero neutral, and positive high.

*N = 17, **N = 23.

Personal Written Comments from the Pretest

Pretest comments revealed a number of subjects who had experienced a challenge course program before (20%), a number of others had heard information about the program from family members or friends (35%), and others had no previous information about the program (45%). The comments were categorized into five themes: (1) a feeling of excitement, (2) an anxiety toward the uncertainty of not knowing, (3) anticipation of learning, (4) a hope to build friendship, and (5) an expectation to get away from school or be outdoors.

Feeling of excitement. The theme, a feeling of excitement, was by far the most common conveyed in comments. Over 50% of the subjects used words such as fun, excited, looking forward to it, good time, great experience. The following two quotes provided an illustration of the theme.

I do remember also doing several fun things, and I'm sure the day will be worth it.

I am very excited to be involved in the course. I am looking forward to participating and having a good time.

The subjects had an overall positive feeling toward the challenge course. Their comments revealed their enthusiasm and genuine interest in participating in the course.

An anxiety toward the uncertainty of not knowing. A few of the comments divulged an uncertainty toward either the physical competence deemed necessary to accomplish the course (17%) or the physical safety of the equipment used (3%). The uncertainty of not

knowing what to expect or if the course would be too challenging, however, did not overcome their anticipation of an overall positive experience.

I was a little nervous when I first heard about some of the events, but I enjoy a challenge.

I'm not really sure what to expect all I've heard is that it is fun and that it is worth the time you take away from school to go on the trip. I just hope that it isn't too challenging whatever we are doing that it is not too athletic but not too wimpy and dumb as well. I like new experiences so I'm sure I'll be up for whatever comes my way—especially in these sorts of situations.

Although some were concerned about their physical ability and competence, there was a reassurance in their wording that they would be all right and cared for by others.

I feel as if I am out of shape. To add to that I am terrible at climbing poles, but realize there is no pressure on anyone to do anything they don't want to- which is a relief.

The anxiety for their physical safety as related to the equipment came from a very small percentage of the students (3%) and had an underlying theme of unrelated consequences. For example, one subject mentioned being worried about being supported by a rope because it might break causing her to fall and break a leg and “then I'd get in deep trouble at home.” Another subject had anxiety about wearing a helmet due to an anticipated level of claustrophobia. The wording of these comments also revealed concerns about other anxieties not directly related to the actual equipment or the experience on the challenge course.

The anxiety theme was not represented in the group of subjects who had participated in the course before. However, there was a comment made by one subject that others who had not been on the course before may have anxieties and that she hoped her prior experience would allow her to be of help to them during the program.

Anticipation of learning. The theme anticipation of learning revolved around the concepts of teamwork, trust, challenge, confidence, and self-awareness. The comments made in regard to the opportunity to learn were expressed in a positive manner.

I enjoy the teamwork, trust, and confidence that is created through this program..

I heard that you work with your teammates and friends to improve your self-esteem, and group team working skills.

I've heard that it's fun, challenging and builds togetherness.

I expect a new experience based on group efforts.

I am expecting to have to depend on some of my other classmates for some of the activities, and I am expecting to challenge myself to do some of our activities.

I expect to feel reliance on others to solve problems.

I like to take personal challenges and also develop teamwork.

I think the rope course will be fun and educating.

It would be a helpful way to find out your feelings about yourself.

It is a fun way to build trust.

Comments about the anticipation of learning were made by 35% of the subjects.

Every subject who made a comment related to this theme also made comment(s) in at least one or more other theme areas. Therefore, learning was not the only expectation.

Hope to build friendship. This theme was represented by 20% of the subject's comments.

Subjects thought of the course as an opportunity to spend time with friends and to get to know their classmates better.

I hope this is a way to get to know more people.

Most of all I'm expecting to enjoy the time I spend with my friends as we go along the course.

I expect to feel ease of tension when meeting new groups of people.
I expect to have a lot of fun because some of my friends are going to be there.

I don't know that many people in my math class so I hope this is a way to get to know more people. Our class is so serious that I don't get to act like myself all the time.

Expectation to get out of school and be out-of-doors. The expectation to get away from school or be out-of-doors was expressed by 20% of the subjects. The concept of getting out of school also revolved around being able to participate in activities that were physical.

Also, I'm excited about getting out of school.

I really enjoy being outside and doing some kind of sport—it makes me feel good.

I expect to get out of school for the day and to have fun doing something physical for a change.

I love the outdoors.

The impression from the comments which formed this theme was that an opportunity to do something with variety or change was of value and highly desirable. It involved moving to a new environment, learning through physical activities, and interacting with differing classmates.

Overall, the pretest comments were positive in nature. Although some subjects were a little uncertain, there was expectation and anticipation that the course would prove worthwhile and fun.

Personal Written Comments from the Posttest

The themes produced from the posttest followed those from the pretest with some important additions. Again, the most common comment revolved around having fun, exhilaration, or enjoyment (65%). The next three most constant comments were related to the theme of anticipation of learning which involved teamwork, trust, and challenge. Two themes were created from these comments: working with others to build team unity and trust and reaching beyond personal limits to take challenge and build confidence. Comments related to a theme about hope to build friendship were also closely related to the theme of working with others to build team unity and trust. In the posttest, the focus of being with friends for the day expanded to include the entire subject group.

An exhilarating experience. Over two-thirds of the subjects commented on how wonderful the day was for them and how much they enjoyed themselves. The comments demonstrated appreciation for the opportunity to participate in such a course. The following quotes were representative of the comments made in this theme.

This is one of the best times I've had in a while.

**I didn't honestly think that it would be this fun but it was.
I will remember this for the rest of my life.**

My expectations were met and it went even beyond what I expected.

The ropes course was exhilarating, a real confidence builder.

This program was the best program I've had the pleasure of attending and participating in.

Working with others to build team unity and trust. The theme of working with others to build team unity and trust was relevant in over fifty percent of the comments made by subjects. The team-building and trust made the atmosphere of the course safe for subjects to reach out and to risk taking a challenge they may not have in other less supportive environments.

Today taught me a lot about cooperation, trust, and patience. Being outdoors was really peaceful and no one seemed to intimidate anyone else, making the whole experience more fun. I got a lot out of this ropes course—thanks a bunch for letting us be your guinea pigs!

I learned a lot about how to trust my friends, myself, and my surroundings. I only felt positive pressure and tons of support. I feel closer to everyone who participated than I was before and was able to accomplish all of my goals.

It helped to have the group encouraging me.

Reaching beyond personal limits to take challenge and build confidence. Reaching beyond personal limits to take challenge and build confidence was mentioned frequently by subjects in the pretest themes as an expectation. However, after the program, the theme

revealed a stronger impact upon subjects than had been anticipated. The following quotes were a small sample of comments that conveyed this theme.

I came thinking that I hoped I could make it to the top, I left knowing I could make it. Thank you so much for the opportunity to push myself to (and beyond) the limit.

I feel that the high activities really made me challenge myself to the limit.

I learned lots of new things and I now have more confidence in myself. Before I didn't take many risks, but now I feel I will.

These three quotes demonstrated the need adolescents feel to take new challenges and test their abilities and skills to prove to themselves they are whom they have discovered themselves to be as individuals. Relating back to the Aghazarian model of self-esteem development from Chapter Two, this theme demonstrated the need to take new challenges and learn new skills to gain confidence and increased self-worth.

I got such a rush from following through, but also knowing that I can actually do what I set my mind to. I am so happy right now. It's almost like I don't care what everyone else thinks because I trust them and they trust me. It's a good feeling.

I regret not having enough courage to complete the high elements, but feel I did the best I could at the time.

These comments revealed the realization of coping with the perceived success of a challenge by the identification of an appropriate goal and the completion of a task.

There were no disappointing comments as to physical ability to accomplish any of the challenges at the course. Although some subjects mentioned not being able to

complete an element, it was not attributed to lack of a physical strength, but from the level challenge the subject had chosen to accept at the moment of the experience. Subjects understood that the process of doing the element was of greater importance than the product of finishing it. Thus, it was interpreted that because appropriate goals were being set none of the experiences were perceived as failures by the subjects.

The posttest comments illustrated the increase in global self-esteem through the concepts of feedback and support and taking a risk or challenge and perceiving it as successful as discussed in the Aghazarian model of self-esteem development from Chapter Two. However, many of the comments can be interpreted to relate to other self-esteem domains such as athletic competence and social acceptance. For example, the following comment demonstrates the testing of the athletic competence and the successful outcome.

I heard people who had taken it before [the course] saying that they couldn't do some of the things and I thought, why not? However, once I was up on top of the pole in the higher elements, jumping for the trapeze bar, I was questioning my ability; I decided to go for it. This was a great experience, one which I would be glad to participate in again.

The course provided a safe environment and an opportunity for adolescents to willingly accept challenges with the support of others. It was a way for them to work on social aspects of self-esteem receiving social acceptance from their peers. The opportunity to give social support was taken by the subjects and appreciated as well.

I really enjoyed working with all the people and being able to feel included in the activities that were going on. The comfortability level was extremely high and I enjoyed all the games we played that allowed us to see how much we trusted each other and how we work really well with other's.

The general feeling of the group was interpreted as an increased sense of self-worth.. Just as a note, 20% of the subjects thanked the researcher for the opportunity to participate on the course. Based on this and the themes that emerged from the personal comments, the qualitative analysis supported the idea that adolescent self-esteem can be increased through providing challenging opportunities in a socially cooperative framework.

Personal Written Comments from the Follow-up Test

Approximately 25% of the subjects chose to make additional written comments during the follow-up test. The opportunity to respond to the course effects a second time led to duplicate responses from the pre- and posttest. Comments followed themes of appreciation for the opportunity to participate, in addition to a wish to return. Other comments reinforced the themes of working with others to create team unity and trust and reaching beyond limits to take challenges and build confidence. The following quotes demonstrated all of these points well.

I just wanted to thank you again for allowing us to participate in your study. The course gave me the opportunity to push myself beyond the norm, and allowed me to make bonds with the people I work with. Thanks again!

Once again, thanks for the experience. It was a highly enjoyable and stimulating day. I feel fortunate to have had the opportunity, it was a great way to spend a day. If the purpose was to increase one's self-confidence, it was reasonably successful. Thanks, good luck, I hope it pays off.

CHAPTER FIVE

Discussion

This chapter allows for evaluation and interpretation of the results from the study reported in Chapter Four. The discussion draws conclusions considering social-psychological and psychological theories reviewed as an introduction to the study, results from each of the self-esteem domains for competency scores, and a rationale for the negative discrepancy scores. Some intervening factors that were not recognized until after the testing which may have influenced subjects' self-esteem are discussed in regard to possible effect on subjects' ratings. In addition, suggestions for further research and implications for replication of the study have been developed.

This thesis investigated the possibility of the challenge ropes course as an intervention tool to increase adolescent self-esteem. As mentioned in Chapter Four, the null hypothesis was supported both by quantitative and qualitative findings; the course positively influenced the experimental group's global self-worth. As an example of deductive research, the Aghazarian model of self-esteem development from Chapter Two was used to show how the ropes course intervention affected self-esteem.

Discussion of the Sample

The sample for this study was limited to students enrolled in four comparable mainstream classes. This was done in order to insure subjects were similar in terms of life-cycle development, level of education, influence from the teacher's style of teaching, and a selectivity bias in which subjects would volunteer on a random basis. Reviewing their

voluntary comments used for content analysis suggests these youth were typical of adolescents in general. For example, they shared thoughts about excitement, being with friends, and getting out of school for the day. Analysis of what stood out as important in their lives also led to the idea that they were coping with identity resolution, neither already matured as adults nor unaware of their maturation challenges as children. What encourages the assessment of their typical adolescent nature is the fact that for all domains that were judged relatively important to the subjects, these youth rated themselves unfavorably in relation to accomplishment.

There were two major reliability concerns that became limiting factors for the study after the design had been set. First, the final number of subjects was unexpectedly small, and second, the homogeneity of the sample may further limit relevance to other populations.. The final number of subjects limited the way in which the data could be analyzed; multivariate and repeated use of t-tests was not to be considered (Franks & Huck, 1986). Thus, findings within domains and discussion was limited principally without benefit of comparative analysis among domains or among subsets of the sample.

It was originally anticipated that the participation rate of the subject groups ($N = 95$) would be 100% due to the study taking place during regularly scheduled class hours. However, 65 subjects were dropped from the sample for various reasons making the final number of subjects a limiting factor for the study. There were 22 subjects who chose not to participate in the study from the beginning, an option made available as a condition for the study with the Human Subjects- Institutional Review Board. While in the classroom,

the researcher noted why subjects may have chosen not to participate in the study.

Listening to conversations between the students and the teacher, the researcher heard that students were wary about taking a day off from all of their classes and missing instruction even though all of the teachers agreed not to penalize or restrict any student absent during the day for the purpose of the study. The researcher interpreted this choice not to participate as possibly being attributed to the anxiety of not knowing exactly what might happen and being unwilling to take the risk of trying something new. Therefore, a certain number of these 22 students may have intentionally made choices to avoid risk or challenge.

A second reason was communicated by the teacher to the researcher why subjects chose not to participate. Several of the students chose not to participate in the study due to conflicting prior commitments to other groups, clubs, or sport programs. Some of these programs had events occurring simultaneously with the time scheduled for subjects to participate at the challenge ropes course while others had conflicts with the times the tests were given. The researcher overheard students comment to the teacher that they would have participated if they had not had made the prior commitments. Once again, it is fair to wonder about the number whose intentions were based on personal priorities and clearly formulated goals, a probable demonstration of maturing coping skills, versus avoidance of undertaking participation in something that was new and perhaps risky or challenging.

There were 20 subjects who were absent on one or more of the test days and, therefore, dropped from the study. These absences were due to a variety of reasons: prior commitments, illness, vacation, and truancy. Of the absences, 17 occurred on the Monday of the follow-up test possibly a consequence of the Junior-Senior Prom held on the preceding weekend. Since the follow-up test date had not been announced to the classes, those absences were not considered to be conditional to the study but, rather, a matter of typical adolescent attendance patterns.

In addition, 23 subjects were dropped from the study for incomplete test data. Wichstrom (1995) challenged Harter's question format proposing that subjects were confused by the double decision-making process required. However, none of the questionnaires were removed for incorrectly marked answers. Rather, subjects seemed to chose not to answer questions selectively, often noting comments in the margins of the test which had to do with being opposed to the wording used. Words such as *should* or *better than others* appeared to have a negative impact on how the questions were received by the subjects. Therefore, test-taking confusion does not appear to be a problem in the case, but emerging sense of personal values and principles seemed to have been threatened by the wording on a number of items.

Discussion of the Findings

The findings associated with competency, importance, and discrepancy scores were studied to determine rationales for increases, and decreases in the mean scores, and negative or low values apparent in the record. Rationales for these variations are

important to consider for these provide ways of judging the validity of the study from theoretical and pragmatic perspectives. Among the sources which inform this discussion are psycho-social theory associated with adolescent development and speculations from direct researcher involvement with these subjects and her broader background as a challenge ropes course leader.

Competency Scores. The patterns that the competency scores revealed were described in Chapter Four. Under normal conditions, repeat test effects produce a slight increase in score due to improved test-taking ability. In addition, there were unforeseen influences that the researcher viewed as a possible basis for some of the patterns. For example, it was learned that the Junior-Senior Prom was held the weekend before the follow-up test was given. This type of critical event may have influenced the way in which the adolescents responded to the test questions during the follow-up test. Their teacher estimated that approximately 85% of the students attended the prom. The courting and social nature and the responsibilities associated with the prom could have influenced the romantic appeal, physical appearance, social acceptance, job, and close friendship domains. A second unforeseen influence was the administration of the Scholastic Achievement Test (SAT), which may have affected student perception of scholastic competence. Therefore, rather than assessing self-esteem associated directly with ropes course participation, two other student experiences could have combined with the ropes course (or in lieu of it for the control group) to produce unmeasured enhanced main effects (positive or negative) confounding interactive effects (weakening, suppressing, or

shielding) so the true effects can only be conjectured. Thus, each of the self-esteem domains were separately evaluated for possible intervening factors.

The scholastic domain, Figure 5, was not expected to be influenced by the interaction with the challenge ropes course due to its non-scholastic nature. In reviewing the ropes course goals, purposes, and instructional language, the idea of personal learning and growth had clearly been communicated. Although not presented in a traditional academic model, student perception of learning ability certainly could have been enhanced for the experimental group. Therefore, the larger increase from pretest to posttest for the experimental group was attributed to the ropes course experience. The control group, however, also showed a larger than expected increase in scholastic posttest mean score; although the increase was somewhat less than that of the experimental group. The effect on control group score was attributed to a possible Hawthorne effect (Babbie, 1992). That is, the control group subjects may well have felt honored to be invited to participate in the study which assisted a college graduate student in completing her master's degree requirements. Conversation with the classroom teacher revealed that the SAT had been administered between the post and follow-up tests. Normally, adolescents feel less than triumphant after taking tests that have so much power to affect their lives. At the time of the follow-up test subjects had not yet received their actual SAT scores, so, the fear of failing or receiving poor scores may have led to the decrease in scholastic competence.

The scores from the romantic appeal domain, Figure 6, were anticipated to increase slightly for both experimental and control groups. However, both group scores

Figure 5. Mean Competency Scores for the Scholastic Domain

— Experimental group
 - - - Control group

Figure 6. Mean Competency Scores for the Romantic Appeal Domain

— Experimental group
-- Control group

were larger than expected, with the experimental group's score being very large. This may have been due to the opportunity to interact on a more personal level with their peers on the ropes course. Although the physical active outdoor experience does not create appeal, for these youth who were looking forward to meeting other, being successful in the social learning situation may have been somewhat rewarding.

The physical appearance domain, Figure 7, also was not expected to continue to increase after the posttest for the experimental group, yet it did to a larger extent than for the control group. Participation in the ropes course required casual, outdoor clothes, not especially designed to be attractive. Activities in the program required physical contact between youth, providing physical support, physical direction, physical cooperation, and physical protection for each other. Ability to give and receive help through physical contact, thus, may have provided positive feedback that each other's physical self was acceptable. For these reasons, judgments about physical appearance not only increased on the posttest, but continued to increase with the follow-up test.

The rather large increase in job domain posttest scores for the experimental group was not anticipated by the researcher, Figure 8. However, in retrospect, ropes course programs are designed to allow participants opportunities to take responsibility to solve problems, be accountable, and coordinate with others. These tasks, the idea of overall perceptions of competence, and personal control corresponded to skills needed to keep and do well at a job and, therefore, may have influenced the increases of self-esteem in this

Figure 7. Mean Competency Scores for the Physical Appearance Domain

— Experimental group
 --- Control group

Figure 8. Mean Competency Scores for the Job Domain

— Experimental group
 - - - Control group

domain for the sample studied. There were no known events in the general population which might have contributed to the gain in job assessment..

In an attempt to explain the scores in the close friendship domain, Figure 9, the researcher used her background experience as a challenge ropes course leader. The findings of this study reported that the experimental group scores on close friendship decreased from pretest to posttest. This may be attributable to the program focus on group unity, team-building, and cooperative efforts, as opposed to close friendship which separates people into dyads or peer clusters. Both the experimental and control group scores showed a tendency to return to the pretest levels in the follow-up test. For each group, but with scoring patterns, the effect may be credited to the prom. In essence a prom is a competitive event in many respects. Comparisons are commonly made about dress, date-rating, shared fantasies, and plans with best friends. The group-building effect of the ropes course may have diminished, explaining the increase or return in score to one nearly identical with their pretest mean. The control group scores may have decreased due to the lack of the group-building affect experienced by ropes course participants.

Aspects of social acceptance also appeared to have been influenced by the prom, Figure 10. Both experimental and control groups had the same amount of gain overall, but the experimental group assessed its gains immediately after the ropes course experience; whereas, the control group showed its primary increase in social acceptance scores after the prom.

Figure 9. Mean Competency Scores for the Close Friendship Domain

— Experimental group
 - - - Control group

Figure 10. Mean Competency Scores for the Social Domain

— Experimental group

- - - Control group

The athletic domain, Figure 11, scores were expected to be influenced by the challenge course for the experimental group. Although the course was designed as more of a mental challenge, the elements still required a degree of athletic competence. The experimental group's assessment of athletic competence increased after the intervention and decreased a little on the follow-up test, still showing an overall positive effect. In comparison, the control group's test results revealed a fairly steady-state in athletic competence assessment, suggesting that participation in the ropes course program had some positive benefits in self-esteem for the experimental group.

Self-esteem as reflected in competence assessments related to behavioral conduct appeared not to be influenced differently for either group during pre-, post-, or follow-up tests, Figure 12. The overall rise in scores was attributed to gained skill at taking the test and perhaps sensed efficacy due to successful self-management nearing the end of the school year.

In regard to the global self-worth domain, Figure 13, the experimental group scores were as anticipated, a large increase followed by a slight decrease. Overall, maintenance of the increase in global self-worth score for the experimental group is noteworthy. However, the researcher did not expect the control group scores to decrease as they did for both tests. Despite two major events in the lives of these teenagers, something was different about them when compared to their counterparts in the control group. The only known difference between the two groups was the challenge program engaged in by the experimental group.

Figure 11. Mean Competency Scores for the Athletic Domain

— Experimental group
 - - - Control group

Figure 12. Mean Competency Scores for the Behavioral Conduct Domain

— Experimental group
 - - - Control group

Figure 13. Mean Competency Scores for the Global Self-worth Domain

— Experimental group
 - - - Control group

Generally then, even when taking the Junior-Senior Prom and SAT test into consideration, gains in athletic, physical appearance, job, romantic appeal, and global self-worth competence may be attributed to taking part in a one-day challenge program compared to engaging in the regular routine of older adolescent. Although minimal, several gains held over a 3 week period, reinforcing the idea that what is meaningful to adolescents can have positive effects on the self-esteem. Exciting, challenging, risky, novel, active, sociable, and cooperative experiences are what they expected and what they remembered as well.

Discrepancy Scores. The fact was mentioned that all of the mean discrepancy scores had negative-values, demonstrating low self-esteem for each of the important self-esteem domains measured for both groups. This may well be explained as an example of the high standards and expectations adolescents have for and of themselves. It is a period of ego-building and identity resolving; becoming like an adult is a tall order in the adolescent mind. Rating the importance of certain domains much higher than personal competence resulted in discrepancy scores with negative values. The effect of dramatized importance and diminished competence reflected the experience known as adolescent egocentricity (Vander Zanden, 1993). Adolescence is a time when youth focus very critically on themselves, whether it be in respect to their appearance, popularity, capabilities, or successes (Csikszentmihalyi & Larson, 1984). Thus, it did not seem unusual for these subjects to have placed great importance on those social and personal attributes associated

with adult status and to have had seen themselves as less-than competent to perform in comparison.

In observing the domains rated as unimportant, some of the discrepancy scores when calculated revealed positive values, see Table 4. This suggested that the adolescents did have a high sense of self-esteem in some of the domains, however those domains were deemed as less critical and thus less influential on self-esteem due to their lower levels of importance, as described by Harter (1988c).

It was also noted that the romantic appeal discrepancy scores for both groups revealed much lower self-esteem scores than for any other domain. The reason for this may be the novelty of the domain for the adolescents as well as the possible thought that future happiness may rest on this. Being romantically appealing is a fairly new or possibly unexplored behavior for most adolescents; yet, it is probably the subject that most absorbs their attention, and it is fed through conversations, soap operas, magazines, and personal fantasy. Therefore, perceived competence in terms of romantic appeal naturally would be low because their anticipations and expectations were high, and their opportunity for practice and judged competence were low. This would explain the very low discrepancy scores.

Demonstration of the Aghazarian Model of Self-Esteem Development. The model can be used to demonstrate how events and experiences of the challenge course program lead to increased self-esteem. The potential to develop self-esteem through one-day challenge ropes course participation can be explained conceptually as creating opportunities to

Table 4

Mean Discrepancy Scores for All Domains with Domains Not Important Highlighted

Self-esteem Domain	<u>Experimental*</u>						<u>Control**</u>					
	PRE		POST		FOLLOW-UP		PRE		POST		FOLLOW-UP	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Scholastic	-.35	.85	-.09	.75	-.32	.78	-.45	.80	-.27	.69	-.38	.75
Social Acceptance	.53	.77	.69	.76	.69	.91	.53	.69	.55	.66	.67	.60
Athletic	.14	1.05	.16	.93	.09	1.01	.06	.51	.17	.55	.18	.44
Physical Appearance	.54	.88	.42	.97	.30	.96	.16	1.22	.04	1.24	.01	1.78
Job	-.56	.61	-.28	.53	-.19	.44	-.14	.80	-.10	.59	-.02	.66
Romantic Appeal	-.96	.89	-.55	.74	-.74	.93	-.71	.95	-.46	1.06	-.47	.97
Behavioral Conduct	-.09	.51	-.04	.45	-.05	.54	.10	.61	.20	.65	.23	.69
Close Friendship	-.24	.73	-.31	.77	-.25	.87	-.13	.80	-.03	.86	-.12	.94

Note. Highlighted values were deemed unimportant by subjects within the group.

*N = 17, **N = 23.

experience a cycle of competence, Figure 14. In this investigation, the experimental group was given an opportunity to participate in a research study of the challenge ropes course which is represented in the model as *Choose to take a risk, task, and/or challenge*. Many subjects' decisions to participate were influenced by those people to whom they looked for guidance, modeling, and information about themselves: parents, friends, teachers, and peers, in other words, *social feedback from the looking-glass*. If the students chose to participate, they were asked to spend a day participating in the ropes course program. At the beginning of the day, Challenge-by-Choice was instituted (see Chapter Two for further details), and participants were asked to develop goals appropriate to their comfort level, or conceptually to *set a goal*. No one was required to do anything that she or he did not want to do. Opportunities to *learn new skills*, such as team-building, to *test new ways*, such as trusting those with whom one usually did not work, and to *feel confident* in a task were given throughout the day. By the end of the day, several subjects had noted in personal comments that they were *glad they chose to come*, felt lucky to have had such an opportunity, and felt as though their *self-confidence had increased*. Many students also had noted that the *positive feedback from their peers* was a strong influence on the success of their day. During the follow-up test, comments were made regarding the *wish to return to the course* which was interpreted as an example of the courage to risk again.

Suggestions for Further Research

Looking back at the study design, the researcher realized that there are several modifications that could be made to improve replications of this study. A primary

Figure 14. Aghazarian Model of Self-Esteem Development Highlighting the Cycle of Competence.

recommendation would be to increase the size of the sample to provide a large enough number of subjects so that both experimental and control groups could be divided by gender for data analysis. In addition, a larger or different sample should be defined to provide a more culturally diverse population, allowing for implications to be drawn for various ethnicities.

The design of the sample should be modified to include not only adolescents typical of their life stage but also youth-at-risk, advanced or gifted adolescents, and those who are mentally and physically challenged. This would improve potential research contributions to the therapeutic values of challenge recreation. Furthermore, if the age range were increased, the comparative effect of challenge ropes course intervention on self-esteem in older and younger subjects could be observed. Any modification of the sample would allow generalizability of the study to be increased.

In evaluating the large number of dropped cases, it may be that students who chose not to participate in the study in effect chose not to take on a challenge. Future studies should examine the possible cycle of hopelessness and the extent to which the cycle of hopelessness or competence is replicated in youths' decisions. By adding a third group (second experimental condition), there would be one experimental group that chose to participate in the study and take on the risk of attending the ropes course, a second experimental group which would consist of those who declined the opportunity to take the risk of participating in the ropes course, and the third group (control group) that would

have the choice to participate in the study but not have the opportunity to participate in the ropes course.

It would interesting to observe the longevity of effect associated with participation in a one-day challenge ropes course program over the period of months or possibly years. A particularly effective study suggestion would be to create a panel, having the same subjects attend the course on a yearly basis, being tested annually or biannually.

All of these proposals would increase the body of knowledge and add confidence in the findings generated by this study. Therefore, it is hoped that suggested modifications may implore other researcher to replicate the study.

Conclusions: What Has Been Learned?

Although generalizing to other adolescent populations is not advisable due to sample size, composition, and unmeasured intervening influences, several conclusion can be drawn. First, it is clear that adolescent self-esteem can be influenced in a positive way by engaging in a program that is as conceptually well-developed as a challenge ropes course. This is supported by the increase in global self-esteem apparent in the experimental group, which was still evident 3 weeks after their participatory experience.

Today's adolescents need positive opportunities to prove themselves, to themselves and to others around them. Robertson (1994) stated that without positive opportunities adolescents will turn to delinquent thrills and excitement. The ropes course provide an opportunity for the adolescents to challenge themselves and with every challenge, there is excitement and risk. Therefore, engaging in healthy, positive,

developmentally meaningful risk-recreation is a chance to experience the best in one's self and adopt a way of living life with competence.

In addition, the ability to cope with stressful life events depends on self-esteem (Csikszentmihalyi, 1990). It would appear that youth in the experimental group thought better of themselves than did students without benefit of the challenge ropes course when making self-judgments about abilities related to friendship and working well with others.

Supported by the positive results of this study, creating opportunities for adolescents to attend challenge ropes courses and other events similar in nature to improve self-esteem is strongly suggested by the researcher. Adolescents need guidance, feedback and positive opportunities to risk to experiences to make the transition from youth to adulthood a positive experience. Conclusions provided by this study, have provided recreation professionals, teachers, youth group leaders, and other program directors with some justification for utilizing a ropes course as a tool to increase self-esteem for adolescent youth in this manner.

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Appendix A

College of Applied Sciences and Arts • Department of Recreation and Leisure Studies
One Washington Square • San José, California 95192-0060 • 408/924-3000 • FAX 408/924-2990

Agreement to Participate in ResearchResponsible Investigator: Tanya L. AghazarianTitle of Protocol: The Effects of the Heron Lake Challenge Course on Adolescents

1. My child has been asked to participate in a research study investigating the effects of the Heron Lake Challenge Course on adolescents.
 2. My child will be asked to complete a standardized self-report questionnaire, where there are no right or wrong answers, during regularly scheduled school hours under the supervision of his/her teacher and the researcher. In addition, my child will be asked to participate at the Heron Lake Challenge Course for a one-day program. My child will be asked to write reflective comments regarding the program in a journal to be read only by the research and her advisory committee for research purposes.
 3. There are very few foreseeable risks or discomforts anticipated from participation in the study for my child. Due to the outdoor nature of the Challenge Course, my child may experience a minor fingernail scrape or knee bruise, but the probability of this is small.
 4. My child may experience an increase in positive feelings toward themselves from his/her experience on the course.
 5. I give permission for the results of the study to be published, however, no specific information should be given that could identify my child as a subject or participant in the study.
 6. I understand that any questions I may have regarding this study may be addressed to the researcher, Tanya L. Aghazarian at 510-724-5750. Complaints about the research may be presented to Charles Whitcomb at 408-924-3009. Questions or complaints about research, subject's rights, or research-related injury may be presented to Serena Stanford, Ph. D., Associate Academic Vice President for Graduate Studies and Research, at 408-924-2480.
 7. If my child chooses not to participate in the study no service of any kind will be lost or jeopardized.
 8. I voluntarily give my consent for my child to participate in this study. My child may refuse to participate in the study or in any part of the study. If my child decides to participate in the study, he or she is free to withdraw at any time without prejudice to my child's relationship to San Jose State University or any other participating institution.
 9. My child will not be allowed to participate in the study without this signed and dated consent form.
- The signature of the parent on this document indicates approval that the child may participate in the study.
 - The signature of the child or ward indicates that he/she is freely willing to participate in the study.
 - The signature of a researcher on this document indicates agreement to include the above named subject in the research and attestation that the subject has been fully informed of his/her rights.

Name of Child or Ward _____

Parental or Guardian's Signature _____

Relationship to Child or Ward _____

() _____
Phone

Date _____

Full Mailing Address _____

Subject's Signature (Child) _____

Date _____

Investigator's Signature _____

Date _____

College of Applied Sciences and Arts • Department of Recreation and Leisure Studies
One Washington Square • San José, California 95192-0060 • 408/924-3000 • FAX 408/924-2990

Agreement to Participate in Research

Responsible Investigator: Tanya L. Aghazarian

Title of Protocol: The Effects of the Heron Lake Challenge Course on Adolescents

1. My child has been asked to participate in a research study investigating the effects of the Heron Lake Challenge Course on adolescents.
 2. My child will be asked to complete a standardized self-report questionnaire, where there are no right or wrong answers, during regularly scheduled school hours under the supervision of his/her teacher and the researcher.
 3. There are no foreseeable risks or discomforts anticipated from participation in the study for my child.
 4. My child may experience an increase in positive feelings toward themselves from the added personal attention of the researcher.
 5. I give permission for the results of the study to be published, however, no specific information should be given that could identify my child as a subject or participant in the study.
 6. I understand that any questions I may have regarding this study may be addressed to the researcher, Tanya L. Aghazarian at 510-724-5750. Complaints about the research may be presented to Charles Whitcomb at 408-924-3009. Questions or complaints about research, subject's rights, or research-related injury may be presented to Serena Stanford, Ph. D., Associate Academic Vice President for Graduate Studies and Research, at 408-924-2480.
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 - The signature of a researcher on this document indicates agreement to include the above named subject in the research and attestation that the subject has been fully informed of his/her rights.

Name of Child or Ward

Parental or Guardian's Signature

Relationship to Child or Ward

() _____
Phone

Date

Full Mailing Address

Subject's Signature (Child)

Date

Investigator's Signature

Date

NAPA VALLEY UNIFIED SCHOOL DISTRICT

Parent Permission for Student Field Trip

The following group _____ of Napa High School will visit _____ on _____. Students will leave school at _____ AM/PM and return about _____ AM/PM. Cost per student is _____. Transportation provided by:

☐ School Bus	☐ Chartered Bus	☐ Faculty Driver
☐ Auto	☐ Parent Driver	☐ Other

This trip is NOT compulsory. Grades and class standing will NOT be affected. If trip is not during the regular day or begins or ends outside regular school hours, and student is not within walking distance from school, parents should arrange for transportation to and from school or point of departure and return.

Waiver of claims. State law stated that "all persons making the field trip or excursion shall be deemed to have waived all claims against the district (its employees) or the State of California for injury, accident, illness, or death occurring during or by reason of the field trip or excursion. All adults taking out-of-state field trips or excursions, and all parents or guardians of students taking out-of-state field trips or excursions, shall sign a statement waiving such claims." (Education Code 35330) Your signature below will acknowledge your notice of this law.

NO STUDENT MAY GO ON ANY FIELD TRIP UNLESS THE PARENT/GUARDIAN HAS SIGNED AND FILED WITH THE SCHOOL THE PORTION BELOW:

 _____ has my permission to go on the field trip described above.
 In case of medical or surgical emergency, I hereby authorize the physician selected by Napa High School Administration to secure all proper and required treatment for the student listed above.

Parent Signature/Date _____

Allergies _____	Restrictions _____
Medical Number _____	Home Phone _____

TEACHER PERMISSION TO BE ABSENT FROM CLASS

The teacher's signature below indicated that the teacher feels that the student will be able to make up any missed work and that the student can afford to miss the classes indicated. (If student is behind in his/her work, teachers should not sign)

Period:

1. _____	4. _____
2. _____	5. _____
3. _____	6. _____

A Program for Leadership and Team Building

Greetings:

You are scheduled for _____ participants with the Heron Lake Challenge program on ____/____/____ at a fee of _____.

This program, set in a beautiful outdoor setting, is designed to provide both individuals and groups with an opportunity for growth and learning. During the day, you will play non-traditional games, solve problems as a group, and participate in other adventure activities. You will begin to know yourself, and those sharing the day with you, better. You will learn to trust yourself and your teammates more. We hope you will participate to your best ability and have a terrific time in the process.

Please read the following information to assure that your experience is an enjoyable and safe one.

FORMS: Please find enclosed the "Participant Information and Release of Liability" forms. Please bring them on your program day. ONLY THOSE INDIVIDUALS WITH PROPERLY COMPLETED FORMS MAY PARTICIPATE. Forms for minors must be signed in the appropriate space by parents or guardians.

CLOTHES: We recommend tennis shoes or light hiking boots, loose fitting long pants, a long-sleeved or short-sleeved shirt (depending on the weather). We also recommend bringing a warm jacket even if there is only a moderate chance of it being cool. Temperatures can change dramatically over the course of the day. Leave large belt buckles, jewelry, wristwatches, knives, radios, chewing gum, cigarettes, etc. at home. Long hair should be tied back.

LUNCH: Bring a lunch and a beverage unless other arrangements have been made. If you expect the day to be warm it would be good to bring extra water. There are not eating facilities or potable water at the site. There are chemical toilets nearby.

TIME: Arrival time is 9:00 a.m. unless otherwise specified. A full-day course usually lasts until 4:00 p.m. Groups will be met at the end of Madrone Street in the parking area adjacent to the lake. (See map on opposite side of this sheet.)

RAIN: We usually won't cancel the program due to rain or inclement weather until the morning of the program. We will contact you if your program is canceled.

We hope the above information is helpful to you. Please call if you have any questions. We look forward to seeing you.

Sincerely,

Pete Woodside
Program Coordinator

A Program for Leadership and Team Building

Dear Parent,

We are pleased that your youngster has the opportunity to attend our Experiential Education, Ropes Course Program. We know that many people are not familiar with this type of education, so we would like to take a minute to explain what a day on the ropes course may involve.

A ropes course is a tool for teaching important living skills through outdoor, hands-on education. The goal of our program is to teach individuals self-esteem, trust, problem solving and communication skills. A ropes course addresses these goals by providing participants with a variety of adventure-based events that are both physically and mentally challenging. The participants solve each challenge as a group by sharing ideas and cooperating with each other. We are able to adjust the level of difficulty of the activities to meet the unique needs of each group. Throughout the entire day we follow our philosophy of Challenge by Choice, which means that we do not force anyone to do anything that they do not want to do.

Most groups spend a whole day on the ropes course, from 9am until 3:30 or 4pm. The entire group participates in warm-up games and then is divided into smaller groups of 8-10 participants. Each group then goes with a facilitator to the low ropes course elements. Under the facilitator's guidance, the participants progress through a variety of challenges that focus on the goals stated above. For all off-the-ground activities we use first rate safety gear that is checked before any participant leaves the ground. These types of activities take place during the afternoon and continue to focus on the goals stated above. Participants are encouraged to try every activity, but they are not forced to do anything that they do not feel ready to try. The atmosphere that is established throughout the day is one of support and encouragement, with the aim of providing maximum learning and enjoyment by the participants.

We are very proud to be able to offer this opportunity to your youngster and just as proud of our staff. Be assured that we take every precaution to provide for the well-being of every participant who comes to our program. We know that the idea of an Experiential Education, Ropes Course program is new for many parents, and we would like you to be confident that your child is in capable hands. It was a pleasure sharing with you some general information regarding our program. If there are any questions we could answer for you, please feel free to call us at (707) 253-6884.

Sincerely,

A handwritten signature in dark ink, appearing to read "Pete Woodside". The signature is fluid and cursive, with the first name "Pete" being more prominent.

Pete Woodside
Program Coordinator

A Program for Leadership and Team Building

PLEASE READ, SIGN AND RETURN

You will receive a parent letter, a general information sheet about the day on the course and release forms prior to your scheduled day. (Class sets of the release forms are enclosed you will need to make copies of the other documents.) THE RELEASE FORMS MUST BE SIGNED BY THE STUDENTS' PARENTS AND PRESENTED UPON ARRIVAL AT THE ROPES COURSE. EVEN IF THE FORMS ARE SIGNED, BUT LEFT AT SCHOOL THE GROUP MAY NOT STAY. IF THE FORMS ARE BROUGHT TO THE COURSE BUT ARE UNSIGNED THEN THOSE STUDENTS WHOSE FORMS ARE NOT SIGNED DO NOT HAVE PERMISSION TO PARTICIPATE OR BE AT THE ROPES COURSE THEREFORE THEY WILL BE ASKED TO RETURN TO SCHOOL.

When we schedule your day on the course we will ask for the number of students that will be attending. If that number increases please let us know as soon as possible so that we are able to staff the day accordingly. The addition of one or two students can make a dramatic difference.

Your role on the course should be a participatory role. Your participation demonstrates that you value this program. Please do not bring your lawn chairs and newspapers, but rather come ready to be a part of the class. If you feel unable to do so, please get a substitute for that day.

Students should be prepped for the day. Please let them know why they are attending the ropes course and review their responsibilities and appropriate behavior. Emphasize that this is a school day not a play day.

If you have any questions, please do not hesitate to contact us. We look forward to working with you soon.

.....cut here & return at least 1 week before program.....

Name (Print) _____
School _____

Your signature _____

Number of Students: _____ Scheduled Date: _____

Thank you very much for your effort and cooperation.

A Program for Leadership and Team Building

PARTICIPANT INFORMATION FORM AND RELEASE OF LIABILITY

Complete and Sign Both Sides

Disclosure

Heron Lake Challenge Program involves a variety of activities that often include warm-ups, games, group initiative problems, high and low ropes course elements, and other rigorous physical adventure activities. (The level of participation in a Heron Lake Challenge program activity is at all times completely up to the individual's choice.) Yet there is a risk, which must be assumed by each participant, that he or she may suffer a physical injury.

Policy for participation in all Heron Lake Challenge Programs requires that every participant have medical insurance coverage or waives the requirement of having medical insurance coverage. In addition, certain health/medical information must be made known to the instructor(s) conducting programs so that they are prepared to respond appropriately if the need arises. This information will be held in confidence. Participants must complete and bring this form with them to the Heron Lake Challenge Workshop for which they are scheduled.

Date of Workshop: _____

Participant Information

1. Name _____
2. Please give us the name and address of your medical insurance company.
Name _____ Policy No. _____
Address _____ Primary Physician _____
3. Do you have any limiting physical disabilities or handicaps (temporary or permanent)? ____ No ____ Yes
If yes, identify and explain: _____

4. Are you currently taking medication (prescribed or otherwise, i.e., cold medicine)? ____ No ____ Yes
If yes, state what you are taking and the condition for which you are taking it: _____

5. Do you have any allergies, reactions to medications, or any other medical limitations? ____ No ____ Yes
If yes, identify and explain: _____

Photo/Media Release:

I, _____, grant to Heron Lake Challenge and persons acting for or through them the right to use, reproduce, assign, and/or distribute photographs, films, videotapes, and sound recordings of me for use in materials they may create.

Date

Signature

RELEASE OF LIABILITY

I understand that parts of the Heron Lake Challenge Program may be physically or emotionally demanding. I affirm that my health is good and that I am not under a physician's care for any undisclosed condition that bears upon my fitness to participate in Heron Lake Challenge activities. I understand that each participant must assume the risk of physical injury that could result from any of these activities. I release the Napa County Office of Education, Heron Lake Challenge Program and its staff members, and the Napa County Board of Education from all liability for any injury to me from participation in Heron Lake Challenge activities.

Does participant have medical insurance? Yes ☐ No ☐ If no, by signing below you release the above agencies from all liability.

Participant's Street Address: _____

City, State, Zip: _____

Telephone (Home): _____ Telephone (Business): _____

DATE: _____

PARTICIPANT'S SIGNATURE (if at least 18 years old): _____

Authorization to Treat a Minor: (Must be completed for all persons under 18 years of age.)

I (We) the undersigned parent, parents, or legal guardian of _____, a minor, do hereby authorize and consent to any x-ray examination, anesthetic, or medical or surgical diagnosis rendered under the general or special supervision of any member of the medical staff or emergency room staff licensed under the provision of the Medical Practice Act or a dentist licensed under the provisions of the Dental Practice Act and on the staff of any acute general hospital holding a current license to operate a hospital from the State of California Department of Public Health. It is understood that this authorization is given in advance of any specific diagnosis, treatment, or hospital care being required, but is given to provide authority and power to render care which the aforementioned physician in the exercise of his best judgement may deem advisable. It is understood that effort shall be made to contact the undersigned prior to rendering treatment to the patient.

This authorization is given pursuant to the provisions of Section 25.8 of the Civil Code of California.

This consent shall remain in effect through _____, 19____

Date

Signature of Father, Mother, or Legal Guardian

Appendix B

Really True for Me	Sort of True for Me				Sort of True for Me	Really True for Me
☐	☐	Some teenagers do very well at their classwork	BUT	Other teenagers don't do very well at their classwork.	☐	☐

The adolescent is first asked to decide which kind of teenager is most like him or her, and then asked whether this is only sort of true or really true for him or her. The effectiveness of this question format lies in the implication that half of the teenagers in the world (or in one's reference group) view themselves in one way, whereas the other half view themselves in the opposite manner. That is, this type of question legitimizes either choice. Our confidence in this format is bolstered by the fact that adolescents' verbal elaborations on the reasons for their choice indicate that they are giving relatively accurate self-perceptions rather than socially desirable responses. The statistical data provide additional evidence with regard to the effectiveness of this type of question.

While a detailed scoring key will be provided later in this manual, the general procedure is to score each item on a scale from 1 to 4, where a score of 1 indicates low perceived competence or adequacy and a score of 4 reflects high perceived competence or adequacy. Thus, in the example given above, the teenager who first indicates that he/she does well at class work and then describes this as really true for him would receive a 4. The teenagers for whom this part of the statement is only sort of true would receive a 3. The teenager who indicates that he/she does not do well at class work, describing this as only sort of true, would receive a 2, and the teenager for whom this part of the statement was really true would receive a 1.

Specific Subscale Structure

Each of the nine subscales contains five items, constituting a total of 45 items. (An additional sample item is included for practice but is not scored.) Within each subscale, two or three of the items are worded such that the first part of the statement reflects high competence or adequacy, and the remaining two or three items are worded such that the first part of the statement reflects low competence or adequacy. The subscale items are presented in the following order for the first nine items of the scale, and then continue to repeat themselves in that order throughout the instrument: (1) Scholastic Competence, (2) Social Acceptance, (3) Athletic Competence, (4) Physical Appearance, (5) Job Competence, (6) Romantic Appeal, (7) Behavioral Conduct, (8) Close Friendship, and (9) Global Self-Worth.

The actual questionnaire, filled out by the adolescent, is entitled WHAT I AM LIKE. It is included in the Appendix of this manual. Note that you have permission to copy this instrument for your own use.

Administration and Instructions

The scale may be administered in groups as well as individually. After filling out the information at the top of the scale, teenagers are instructed as to how to answer the questions, given below. Typically, we introduce the scale as a survey where there are no right or wrong answers.

In explaining the question format, it is essential that you make it clear that for any given item they only check one box on either side of the sentence. They do not check both sides. (Invariably there will be one or two teenagers who will check both sides initially and thus you will want to have someone monitor each teenager's sheet at the onset to make certain that they understand that they are only to check one box per item.)

INSTRUCTIONS TO THE TEENAGER

We have some sentences here and, as you can see from the top of your sheet where it says "What I am like," we are interested in what each of you is like, what kind of a person you are like. This is a survey, not a test. There are no right or wrong answers. Since teenagers are very different from one another, each of you will be putting down something different.

First let me explain how these questions work. There is a sample question at the top, marked (a). I'll read it outloud and you follow along with me. (Examiner reads sample question.) This question talks about two kinds of teenagers, and we want to know which teenagers are most like you.

- (1) So, what I want you to decide first is whether you are more like the teenager on the left side who would rather go to the movies or whether you are more like the teenagers on the right side who would rather go to a sports event. Don't mark anything yet, but first decide which kind of teenagers is most like you, and go to that side of the sentence.
- (2) Now, the second thing I want you to think about, now that you have decided which kind teenagers are most like you, is to decide whether that is only sort of true for you, or really true for you. If it's only sort of true, then put an X in the box under sort of true; if it's really true for you, then put an X in that box, under really true.
- (3) For each sentence you only check one box. Sometimes it will be on one side of the page, another time it will be on the other side of the page, but you can only check one box for each sentence. You don't check both sides, just the one side most like you.
- (4) OK, that one was just for practice. Continue with these sentences on your own. For each one, just check one box, the one that is most true for you, what you are most like.

What I am Like

Sample Sentence

	Really True for Me	Sort of True for Me		BUT		Sort of True for Me	Really True for Me
a)	☐	☐	Some teenagers like to go to movies in their spare time		Other teenagers would rather go to sports events.	☐	☐
<hr/>							
1.	☐	☐	Some teenagers feel that they are just as smart as others their age		Other teenagers aren't so sure and wonder if they are as smart.	☐	☐
2.	☐	☐	Some teenagers find it hard to make friends		For other teenagers it's pretty easy.	☐	☐
3.	☐	☐	Some teenagers do very well at all kinds of sports		Other teenagers don't feel that they are very good when it comes to sports.	☐	☐
4.	☐	☐	Some teenagers are not happy with the way they look		Other teenagers are happy with the way they look.	☐	☐
5.	☐	☐	Some teenagers feel that if they are ready to do well at a part-time job		Other teenagers feel that they are not quite ready to handle a part-time job.	☐	☐
6.	☐	☐	Some teenagers feel that if they are romantically interested in someone, that person will like them back		Other teenagers worry that when they like someone romantically, that person won't like them back.	☐	☐
7.	☐	☐	Some teenagers usually do the right thing		Other teenagers often don't do what they know is right.	☐	☐
8.	☐	☐	Some teenagers are able to make really close friends		Other teenagers find it hard to make really close friends.	☐	☐
9.	☐	☐	Some teenagers are often disappointed with themselves		Other teenagers are pretty pleased with themselves.	☐	☐
10.	☐	☐	Some teenagers are pretty slow in finishing their school work		Other teenagers can do their school work more quickly.	☐	☐

	Really True for Me	Sort of True for Me				Sort of True for Me	Really True for Me
11.	☐	☐	Some teenagers have a lot of friends	BUT	Other teenagers don't have very many friends.	☐	☐
12.	☐	☐	Some teenagers think they could do well at just about any new athletic activity	BUT	Other teenagers are afraid they might not do well at a new athletic activity.	☐	☐
13.	☐	☐	Some teenagers wish their body was different	BUT	Other teenagers like their body the way it is.	☐	☐
14.	☐	☐	Some teenagers feel that they don't have enough skills to do well at a job	BUT	Other teenagers feel that they do have enough skill to do well at a job.	☐	☐
15.	☐	☐	Some teenagers are not dating the people they are really attracted to	BUT	Other teenagers are dating those people they are attracted to.	☐	☐
16.	☐	☐	Some teenagers often get in trouble for the things they do	BUT	Other teenagers usually <i>don't</i> do things that get them in trouble.	☐	☐
17.	☐	☐	Some teenagers do have a close friend they can share secrets with	BUT	Other teenagers do not have a really close friend they can share secrets with.	☐	☐
18.	☐	☐	Some teenagers don't like the way they are leading their life	BUT	Other teenagers do like the way they are leading their life.	☐	☐
19.	☐	☐	Some teenagers do very well at their class work	BUT	Other teenagers don't do very well at their class work.	☐	☐
20.	☐	☐	Some teenagers are very hard to like	BUT	Other teenagers are really easy to like.	☐	☐
21.	☐	☐	Some teenagers feel that they are better than others their age at sports	BUT	Other teenagers don't feel they can play as well.	☐	☐
22.	☐	☐	Some teenagers wish their physical appearance was different	BUT	Other teenagers like their physical appearance the way it is.	☐	☐
23.	☐	☐	Some teenagers feel they are old enough to get and keep a paying job	BUT	Other teenagers do not feel they are old enough, yet, to really handle a job well.	☐	☐
24.	☐	☐	Some teenagers feel that people their age will be romantically attracted to them	BUT	Other teenagers worry about whether people their age will be attracted to them.	☐	☐

	Really True for Me	Sort of True for Me			Sort of True for Me	Really True for Me
25.	☐	☐	Some teenagers feel really good about the way they act	BUT	Other teenagers <i>don't</i> feel that good about the way they often act.	☐
26.	☐	☐	Some teenagers wish they had a really close friend to share	BUT	Other teenagers <i>do</i> have a close friend to share things with.	☐
27.	☐	☐	Some teenagers are happy with themselves most of the time	BUT	Other teenagers are often not happy with themselves.	☐
28.	☐	☐	Some teenagers have trouble figuring out the answers in school	But	Other teenagers almost always can figure out the answers.	☐
29.	☐	☐	Some teenagers are popular with others their age	BUT	Other teenagers are not very popular.	☐
30.	☐	☐	Some teenagers don't do well at new outdoor games	BUT	Other teenagers are good at new games right away.	☐
31.	☐	☐	Some teenagers think that they are good looking	BUT	Other teenagers think that they are not very good looking.	☐
32.	☐	☐	Some teenagers feel like they could do better at work they do for pay	BUT	Other teenagers feel that they are doing really well at work they do for pay.	☐
33.	☐	☐	Some teenagers feel that they are fun and interesting on a date	BUT	Other teenagers wonder about how fun and interesting they are on a date.	☐
34.	☐	☐	Some teenagers do things they know they shouldn't do	BUT	Other teenagers hardly ever do the things they know they shouldn't do.	☐
35.	☐	☐	Some teenagers find it hard to make friends they can really trust	BUT	Other teenagers are able to make close friends they can really trust.	☐
36.	☐	☐	Some teenagers like the kind of person they are	BUT	Other teenagers often wish they were someone else.	☐
37.	☐	☐	Some teenagers feel that they are pretty intelligent	BUT	Other teenager question whether they are intelligent.	☐
38.	☐	☐	Some teenagers feel that they are socially accepted	BUT	Other teenagers wished that more people their age accepted them.	☐
39.	☐	☐	Some teenagers do not feel that they are very athletic	BUT	Other teenagers feel that they are very athletic	☐

	Really True for Me	Sort of True for Me			Sort of True for Me	Really True for Me
40.	☐	☐	Some teenagers really like their looks	BUT	Other teenagers wish they looked different.	☐
41.	☐	☐	Some teenagers feel that they are really able to handle the work on a paying job	BUT	Other teenagers wonder if they are really doing as good a job at work as they should be doing.	☐
42.	☐	☐	Some teenagers usually <i>don't</i> go out with the people they would really like to date	BUT	Other teenagers do go out with the people they really want to date.	☐
43.	☐	☐	Some teenagers usually act the way they know they are supposed to	BUT	Other teenager often don't act the way they are supposed to.	☐
44.	☐	☐	Some teenagers <i>don't</i> have a friend that is close enough to share really personal thoughts with	BUT	Other teenagers do have a close friend that they can share personal thoughts and feelings with.	☐
45.	☐	☐	Some teenagers are very happy being the way they are	BUT	Other teenagers wish they were different.	☐

Susan Harler, University of Denver, 1988

Susan Harler, University of Denver, 1988

Scholastic Competence Subscale		Social Acceptance Subscale					Athletic Competence Subscale					Physical Appearance Subscale					Job Competence Subscale															
S	SEX	GRADE	1	10	19	28	37	Mean	2	11	20	29	38	Mean	3	12	21	30	39	Mean	4	13	22	31	40	Mean	5	14	23	32	41	Mean
				</																												

[illegible]

HOW IMPORTANT ARE EACH OF THESE THINGS TO YOU?

	Really True for Me	Sort of True for Me		Sort of True for Me	Really True for Me		
1.	☐	☐	Some teenagers think it is important to be intelligent	BUT	Other teenagers don't think it is important to be intelligent.	☐	☐
2.	☐	☐	Some teenagers don't think its all that important to have a lot of friends	BUT	Other teenagers think that having a lot of friends is important.	☐	☐
3.	☐	☐	Some teenagers think its important to be good at sports	BUT	Other teenagers don't care much about being good at sports.	☐	☐
4.	☐	☐	Some teenagers don't really think that their physical appearance is all that important	BUT	Other teenagers think that their physical appearance is important.	☐	☐
5.	☐	☐	Some teenagers don't care that much about how well they do on a paying job	BUT	Other teenagers feel its important that they do well on a paying job.	☐	☐
6.	☐	☐	Some teenagers think its important that the people they are romantically interested in like them back	BUT	Other teenagers don't really care that much whether someone they are interested in likes them that much.	☐	☐
7.	☐	☐	Some teenagers don't think its that important to do the right thing	BUT	Other teenagers think that doing the right thing is important.	☐	☐
8.	☐	☐	Some teenagers think its important to be able to make really close friends	BUT	Other teenagers don't think making close friends is all that important.	☐	☐
9.	☐	☐	Some teenagers don't think that doing well in school is really that important	BUT	Other teenagers think that doing well in school is important.	☐	☐
10.	☐	☐	Some teenagers think its important to be popular	BUT	Other teenagers don't care that much about whether they are popular.	☐	☐
11.	☐	☐	Some teenagers don't think that being athletic is that	BUT	Other teenagers think that being athletic is important.	☐	☐
12.	☐	☐	Some teenagers think that how they look is important	BUT	Other teenagers don't care that much about how they look.	☐	☐

	Really True for Me	Sort of True for Me			Sort of True for Me	Really True for Me
13.	☐	☐	Some teenagers think its important to do their best on a paying job	BUT	Other teenagers don't think that doing their best on a job is all that important.	☐
14.	☐	☐	Some teenagers don't care that much whether they are dating someone they are romantically interested in	BUT	Other teenagers think its important to be dating someone they are interested in.	☐
15.	☐	☐	Some teenagers think its important to act the way they are supposed to	BUT	Other teenagers don't care that much whether they are acting the way they are supposed to.	☐
16.	☐	☐	Some teenagers don't care that much about having a close friend they can trust	BUT	Other teenagers think its important to have a really close friend you can trust.	☐

Specific procedure for calculating the competence/importance discrepancy score

Step 1 Name of domains in which Importance Scores are 3.0, 3.5, or 4.0.	Step 2 Competence or Adequacy Scores (from Self-Perception Profile)	Step 3 Importance Ratings of 3, 3.5, and 4 only (from Importance Rating Scale)	Step 4 Discrepancy Score	
			Sign (+ or -)	Value
(a) _____	_____ minus	_____ equals	_____	_____
(b) _____	_____ minus	_____ equals	_____	_____
(c) _____	_____ minus	_____ equals	_____	_____
(d) _____	_____ minus	_____ equals	_____	_____
(e) _____	_____ minus	_____ equals	_____	_____
(f) _____	_____ minus	_____ equals	_____	_____
(g) _____	_____ minus	_____ equals	_____	_____
(h) _____	_____ minus	_____ equals	_____	_____

In most cases this Discrepancy Score will be *negative*, however, it can also be zero, or assume positive values.

The larger the negative discrepancy score, the more one's importance scores exceed one's competence levels, and the lower one's self-worth score should be as a result.

Step 5
Sum of Discrepancy
Scores taking sign into
account:

Step 6
Mean Discrepancy
Score:

Step 7
Transfer Global Self-
Worth Score from the
Self-Perception Profile,
in order to compare.

_____ (sum)	_____ (score)
_____ (sum)	_____ (score)

Appendix C

Office of the Academic Vice President • Associate Academic Vice President • Graduate Studies and Research
One Washington Square • San Jose, California 95192-0025 • 408/924-2480

TO: Tanya Aghazarian
1143 Alberdan Circle
Pinole, CA 94564

FROM: Serena W. Stanford
AAVP, Graduate Studies & Research

DATE: March 27, 1996

The Human Subjects-Institutional Review Board has approved your request to use human subjects in the study entitled:

"Challenge Course as Intervention to Adolescent
Self-Esteem"

This approval is contingent upon the subjects participating in your research project being appropriately protected from risk. This includes the protection of the anonymity of the subjects' identity when they participate in your research project, and with regard to any and all data that may be collected from the subjects. The Board's approval includes continued monitoring of your research by the Board to assure that the subjects are being adequately and properly protected from such risks. If at any time a subject becomes injured or complains of injury, you must notify Serena Stanford, Ph.D., immediately. Injury includes but is not limited to bodily harm, psychological trauma and release of potentially damaging personal information.

Please also be advised that each subject needs to be fully informed and aware that their participation in your research project is voluntary, and that he or she may withdraw from the project at any time. Further, a subject's participation, refusal to participate, or withdrawal will not affect any services the subject is receiving or will receive at the institution in which the research is being conducted.

If you have any questions, please contact me at (408) 924-2480.

Appendix D

Direction To Subjects For Personal Written Comments

Pretest

Ask subjects to turn questionnaires over when they are finished answering all 45 questions. When all subjects have completed the questionnaire slowly read directions aloud.

“On the bottom of the last page please write what your expectations and anticipations are for the course. You can do this by an essay, full sentences, phrases, words, or even pictures. I am just looking for feedback in your own words.”

Posttest 1

After handing out questionnaires, ask subjects to make personal written comments on the back sheet again.

“When you are finished answering all 45 questions, please turn the questionnaire over and write any comments you may have about the course or the day. Explain if your expectations and anticipations were met and how you feel about the day in general.

Follow-up Test

After handing out the questionnaire, ask subjects to note any further comments or highlights that are on their minds.

“When you are finished answering all 45 questions, please turn the questionnaire over and write any further comments or significant thoughts that may come to mind.”

Appendix E

Sample Demographics

	<u>Experimental</u>	<u>Control</u>
Number of subject within the group	17	23
Gender		
Male	6	11
Female	11	12
Grade		
10 th	0	1
11 th	15	17
12 th	2	5
Age in years		
15	0	1
16	10	9
17	7	10
18	0	3
Ethnicity		
Caucasian	14	18
Asian	2	3
Hispanic	0	2
American Indian	1	0