INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

U·M·I

Order Number 9312719

An investigation of a strengths-based intervention to improve adolescent self-esteem

McMurrer, James Emmet, Jr., Ph.D.

University of Washington, 1992

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

An Investigation of a

Strengths-Based Intervention

To Improve Adolescent Self-Esteem

by

James Emmet McMurrer, Jr.

A dissertation submitted in partial fulfillment
of the requirements for the degree of

Doctor Of Philosophy

University Of Washington

1992

Approved by _____
(Chairperson of Supervisory Committee)

Program Authorized
to Offer Degree _____College of Education_____

Date _____December 10, 1992_____

© Copyright 1992

James Emmet McMurrer, Jr.

In presenting this dissertation in partial fulfillment of the requirements for the Doctoral degree at the University of Washington, I agree that the Library shall make its copies freely available for inspection. I further agree that extensive copying of this dissertation is allowable only for scholarly purposes, consistent with "fair use" as prescribed in the U.S. Copyright Law. Requests for copying or reproduction of this dissertation may be referred to University Microfilms, 1490 Eisenhower Place, P.O. Box 975, Ann Arbor, MI 48106, to whom the author has granted "the right to reproduce and sell (a) copies of the manuscript in microform and/or (b) printed copies of the manuscript made from microform."

Signature _James E. McMurray Jr_

Date _December 10, 1992_

University of Washington

Abstract

An Investigation of a

Strengths-Based Intervention

To Improve Adolescent Self-Esteem

by James Emmet McMurrer, Jr.

Chairperson of the Supervisory Committee: Professor Jerald R. Forster

College of Education

This study evaluated the Dependable Strengths Articulation Process as a strategy for enhancing adolescent self-esteem.

The Dependable Strengths Articulation Process is an intervention that uses memories of positive life experiences as resources to elicit personal constructions of skills, talents, abilities and other positive personal qualities that the participants may have ignored, forgotten, or somehow devalued. These personal qualities are organized and evaluated by participants when they engage in the process. The qualities that contributed to several past positive experiences and are desired in future experiences are considered to be dependable strengths. The outcome of this process is an awareness of new positive personal constructions that should enable adolescents to be more productive and effective.

A highly qualified teacher conducted the intervention in her 10th grade health classes. A comparison group consisted of students who had taken the health course from the same teacher a year earlier but without the dependable strengths unit. The Piers-Harris Children's Self-Concept Scale was used as preintervention and postintervention measures.

The primary data analysis for the intervention was a two by two factorial ANOVA. In addition to determining whether there was a difference in the dependent variables between the intervention group and the comparison group, the analysis determined whether there was a difference in the dependent variables based on the gender of the students. The preintervention scores were used as a covariate to compensate for the fact that it was not possible to randomly assign students to classes.

The results for the Piers-Harris Children's Self-Concept Scale indicate a significant postintervention difference between the intervention and comparison groups for three scales: 1) Total Score ($p = 0.039$), 2) Physical Appearance and Attributes ($p = 0.012$), and 3) Popularity ($p = <0.001$).

The results of this investigation using a quasi experimental design support a presumptive conclusion that the Dependable Strengths Articulation Process intervention affected the self-esteem of the 10th grade health course students and support continuing research on the application of the dependable strengths concepts in educational settings.

Table of Contents

List of Tables

Acknowledgments

I would like to express my sincere appreciation to several individuals who have contributed substantially to my graduate educational experience and to the completion of this dissertation.

To my Supervisory Committee, I express my gratitude for their challenge and support. Dr. Jerald Forster, Chairperson, has provided inspiration, encouragement, guidance, instruction, insight, and friendship; he is a remarkable educator. Dr. Percy Peckham always made himself available when I needed his consultation concerning the design of the intervention and the treatment of the data; his attitude of encouragement has been greatly appreciated. Dr. Francis Hunkins made several helpful suggestions during the planning of the investigation; however, I am particularly indebted to him for the insightful questions, comments, and suggestions that he offered while I was writing the dissertation. Dr. Robert Bolles, the Graduate Faculty Representative on the committee, was available, encouraging, and supportive.

I am particularly grateful to Len Hoover, a high school counselor and strong supporter of the dependable strengths concepts. Len had the knowledge and vision to realize that these concepts might be useful as a classroom strategy for satisfying some of the student learning objectives related to self-concept and self-esteem for 10th grade health courses.

I am indebted to Raymond Johnson, a high school principal, for having the confidence in his teachers and in me to enable us to conduct this investigation in his school.

Sherry Weatherby, whom I refer to as the "intervention teacher" in this dissertation, was the key performer in this investigation; I am deeply indebted to her. Sherry is truly a student-focused, self-esteem affirming teacher who is sincerely dedicated to helping her students develop and grow; I think most of them know that. Her willingness to incorporate the dependable strengths concepts into her 10th grade health course made this investigation possible. Her committed efforts to adapt the Dependable Strengths Articulation Process (DSAP) procedures to a high school classroom format, her work to integrate the concepts meaningfully into her health course, and her innovations to employ the DSAP effectively with adolescent students made the intervention successful.

iii

I am grateful to the high school students who were the subjects for this investigation and who taught me so much about interventions in the real world.

The dependable strengths research discussion group, particularly Kathy Severson and Terry Schwartz, provided many helpful suggestions during the planning of the investigation; I thank them for their interest, questions, and useful suggestions.

I am indebted to the consultants, particularly Penelope Karovsky and Emily Dibble, of the Center for Social Science Computation and Research for their helpful suggestions and assistance when I was doing the analysis of the data.

I especially thank Jean and Bernard Haldane for establishing the Dependable Strengths Research and Demonstration Project, which provided financial support during the early months of the investigation.

There are others who were not directly involved in the investigation to whom I also wish to extend my sincerest appreciation.

I am particularly indebted to Dr. Maurice Freehill for the support, encouragement, and inspiration he gave me early in my doctoral program.

I especially thank Kathi Cowden, Dr. Robert Brown, and Dr. Husain Bashey for their interest, support, confidence, and encouragement.

I thank the members of the Lake City Christian Church for their interest, concern, support, and encouragement; I especially thank Dr. John Bristow for his valuable editorial suggestions.

Finally, my greatest appreciation is to my family; without their continued interest, support, encouragement and love I would not have completed the program. I thank my adult children, Aileen, Norma, Jim, and Daphne Lucille, for their continued interest and encouragement. I especially thank my wife, Nancy, for the many valuable editorial comments and suggestions she offered while I was writing the dissertation. My greatest thanks goes to Nancy and our young son, Matthew, for having been patient, concerned, understanding, emotionally supportive, encouraging, and loving.

To all of you, I express my heartfelt appreciation.

iv

Chapter I: Introduction

Background

The testimony at the public hearings that led to the establishment of the California Task Force to Promote Self-Esteem and Personal and Social Responsibility established a consensus that self-esteem is a primary factor affecting how well or how poorly individuals function in our society. Mecca, Smelser, & Vasconcellos (1989) concluded that many of society's major problems have their roots in the low self-esteem of the members of society. It follows that effective procedures for enhancing self-esteem might help to reduce the enormous cost in tax dollars and in human suffering caused by such social problems as child abuse, crime and violence, teenage pregnancy, chronic welfare dependency, academic failure and school dropout, and drug and alcohol abuse. It is essential that society establish conditions that will enable the development of high self-esteem among its young members and establish programs that will rehabilitate those who have a sense of identity as an unworthy person.

The development of a sense of identity is an important developmental task confronting adolescents. This task is often confounded by the confusion of roles adolescents may experience in a society that has conflicting expectations for them; Erikson (1950) refers to this as identity confusion. Some adolescents experiencing identity confusion may feel that they are regressing rather than progressing. A favorable outcome for this stage of adolescent development would be a sense of positive identity as a valuable person with a unique combination of skills, aptitudes, and talents.

Beane & Lipka (1986) believe that units of instruction that place a strong emphasis on the enhancement of student self-perception are essential to good educational programs. A need has been established for instructional units and other interventions to enhance the self-esteem of students. A possibility for responding to this need by using the Dependable Strengths Articulation Process (DSAP) was proposed by Forster (1989) when he provided a rationale for the process originally developed to help senior military officers return to civilian employment after World War II (Haldane, 1988). The DSAP, which has been best known for helping people make job transitions,

was adapted for more general use in high schools by Boivin-Brown (1990). The adaptation was facilitated by the Dependable Strengths Project of the University of Washington, a 10-year project initiated in 1987 to identify the effective variables in the DSAP and develop educational applications for the process (Haldane & Forster, 1992).

This investigation, to evaluate the DSAP as a strategy for enhancing adolescent self-esteem, was initiated in December of 1989. A high school counselor, participating in a training program presented by the Dependable Strengths Project, suggested that instruction using the dependable strengths concepts could satisfy some of the student learning objectives related to self-esteem for 10th grade health courses. In January 1990, this investigator and the counselor proposed such an intervention to his principal, who responded favorably. The proposal was then discussed with, and support obtained from: school counselors, health teachers, the head of the health and physical education department, key school district staff members, the school district superintendent, and the district school board. An instructional unit using dependable strengths concepts was incorporated in the health courses at this suburban high school in western Washington during the spring and fall semesters of 1990, and the spring semester of 1991.

Purpose

The primary purpose of this investigation was to explore the effect of using the Dependable Strengths Articulation Process (DSAP) as a strategy for enhancing the self-esteem of adolescents. The secondary purpose was to evaluate the DSAP as a strategy to enhance the internal locus of control of adolescents. The general assumption underlying the investigation was that the DSAP would help adolescents develop positive self-perceptions, which would help them:

1. Value themselves more, reflected by an increase in self-esteem, and

2. Feel that they had greater control over their lives, reflected by an increase in internal locus of control.

Definition of Terms

The following definitions are used in this study:

Self-concept is the descriptive component of self-perception. It is a description of self in terms of the attributes a person believes he or she possesses and the roles a person believes he or she plays. It does not include value judgments. (Pope, McHale and Craighead, 1988; Beane & Lipka, 1986)

Self-esteem is the evaluative component of self-perception. It is the degree of self-worth or self-regard a person feels based on his or her evaluation of the self-concept. It is a measure of the degree to which a person is satisfied or dissatisfied with his or her self-concept and the degree to which the self-concept (perceived self) is in agreement with the person's ideal self (what the person would like to be based on his or her values). (Pope, McHale and Craighead, 1988; Beame & Lipka, 1986)

Dependable strengths are self-constructions of "skills, talents, and other qualities that have been developing over one's life, from childhood to the present, and which when used in combination enable one to do certain things well, with a sense of satisfaction and pride. . . . Each person can identify from six to about fifteen dependable strengths in a pattern that usually can be traced back to early childhood" (Haldane, 1988). It is useful to think of these strengths as positive personal constructions.

Good experiences are achievements or accomplishments that a person feels he or she did well, enjoyed doing, and is proud of (Haldane, 1989). Good experiences are the basic building blocks of the Dependable Strength Articulation Process.

Dependable Strength Articulation Process (DSAP) is a classroom or workshop procedure that uses the self-identified good experiences of a person's life to focus on the individual's awareness of skills, talents, and other positive personal characteristics, which may have been undervalued, ignored, overlooked or underutilized (Forster, 1988, 1989). Although DSAP group interventions have differed in their details, most of these interventions have included several fundamental steps:

* The facilitator discusses the concept of good experiences.
* The facilitator demonstrates how a group can help a member

identify strengths through the sharing of good experiences.

    * The participants share good experiences in small groups and help each other identify potential dependable strengths.

    * The participants analyze their strengths and develop short lists of dependable strengths (McMurrer, 1989).

    Locus of control is concerned with a person's beliefs related to the causal relationships between the person's actions and his or her feelings of ability to influence the environment and its reinforcement and/or reward systems. Locus of control relates to one's general beliefs that successes and failures are the results of internal or external factors. External locus of control (externality) is defined as the belief that events are not entirely contingent upon one's own actions, but are seen as the result of fate, chance, luck, or as unpredictable, owing to environmental complexity, or under the control of powerful others. Internal locus of control (internality) refers to the belief that events are contingent upon one's own behavior or relatively permanent personal characteristics. (Rotter, 1966)

Research Hypotheses

    The research hypotheses for this investigation are the following:

    Hypothesis 1 The self-esteem of students who receive instruction using dependable strengths concepts will be greater than the self-esteem of those students who do not receive instruction using dependable strengths concepts.

    Hypothesis 2 The locus of control of students who receive instruction using dependable strengths concepts will reflect greater internality than the locus of control of those students who do not receive instruction using dependable strengths concepts.

    This investigation examined the DSAP as a strategy for facilitating the development of positive self-perceptions for adolescents. The major expectation of this intervention was that the self-esteem and internal locus of control of the adolescent participants would be enhanced.

Chapter II: Review of Literature

This chapter presents a summary of literature supporting this investigation. The literature also supports the validity of the assumptions underlying the Dependable Strengths Articulation Process (DSAP). This literature pertains to four areas: the Dependable Strengths Articulation Process (DSAP), self-concept, self-esteem, and locus of control.

The Dependable Strengths Articulation Process (DSAP)

Forster (1991) describes the DSAP as a self-development process that facilitates positive self-constructions. It enables participants to use long-past, recent and current good experiences of their lives to perceive positive life patterns. Awareness of these patterns can enable them to expand their potential. It also helps them apply their skills, talents, traits and capabilities in ways that tend to ensure higher productivity and reduced stress. The DSAP was developed over a period of forty years by Bernard Haldane; it is based on his experience helping adults identify their strengths to increase employability (Haldane, Haldane & Martin, 1980; Haldane, 1981). Evaluations collected from participants in DSAP workshops indicate that most participants considered the DSAP to be useful (Forster, 1988).

An analysis of the DSAP procedures and techniques indicates that the DSAP can be explained by the concepts of Kelly's Personal Construct Theory (Kelly, 1955). The DSAP functions as a modification of Kelly's Role Construct Repertory Grid (Rep Grid), which can be seen as a structured interview technique enabling an interviewer to develop quickly an overview of a person's major, or core, construct dimensions (Epting, 1984). When engaging in the DSAP, participants use significant positive events (good experiences) as elements are used in a modified Rep Grid; this is done in much the same manner as a participant's past significant life events are used in Forster's Goals Articulation Process (Forster, 1985, 1986).

DSAP workshops conducted by the Dependable Strengths Project with students from the University of Washington Extension Program demonstrated that this process has an immediate positive impact on Adjective Check List scales such as self-confidence, motivation to achieve, and concern for self-

understanding (McMurrer, 1989). The DSAP was also used in an abbreviated form as part of a career exploration and planning sequence by clients of the University of Washington Clinical Services and Research Center with similar favorable short-term results (Forster, 1988).

The fundamental assumption underlying the DSAP is that dependable strengths can be found in the good experiences of people's lives. The fundamental assumption underlying this intervention is that the DSAP will enable adolescents to develop positive self-perceptions, which in turn will enable them to value themselves more and feel that they have greater control of their lives. Recent research in the areas of cognitive and social psychology lends support to these assumptions.

Taylor and Brown (1988) conclude from their review of the research that mentally healthy people employ a set of interrelated positive illusions when reflecting about themselves. Their use of the term *illusion* implies a general pattern of bias or error, or both, that seems to be systematic, enduring and pervasive. They consistently found three positive illusions:

    1. Unrealistically positive self-evaluations,

    2. Exaggerated perceptions of control or mastery, and,

    3. Unrealistic optimism.

Taylor and Brown acknowledge that the findings of their review are at odds with the dominant theme that mentally healthy people accurately perceive reality, as found in the writings of major theorists. The somewhat discrepant results found in the more recent work of the cognitive and social psychologists upon which Taylor and Brown base their conclusions may be explained by the fact that these studies were performed with mentally healthy people. Earlier studies equating mental health with realism may have used more unhealthy subjects. Most mentally healthy people make very positive self-evaluations, strongly indicating that positive personality adjectives are more descriptive of them than negative adjectives (Greenwald, 1980; Alicke, 1985; Brown, 1986).

In related work supporting Taylor and Brown (1988), Kuiper, Olinger, MacDonald, & Shaw (1985) investigated the processing and recall of self-referent information by male and female undergraduate college students who were vulnerable for depression (but not depressed) and students who were

nonvulnerable nondepressed. Vulnerable depressed students were used as controls. The students were presented a list of adjectives containing nondepressed- and depressed-content adjectives; they were required to indicate whether or not each adjective applied to them. After the completion of this task, they were unexpectedly asked to recall as many of the adjectives as possible. Kuiper et al. found that the nondepressed students recalled far more positive self-referenced adjectives than depressed students recalled. Kuiper et al. concluded that nondepressed individuals processed and recalled positive personality information much more efficiently and easily than negative personality information.

Taylor and Brown (1988) suggest that for many people, motivation, persistence and productive performance may be enhanced by positive illusions. They make the assumption that positive illusions contribute to positive affect. In turn, Isen and her associates have found that positive affect not only facilitates creative problem solving (Isen, Daubman, & Nowicki, 1987), but it also facilitates the effective recall of positive information (Isen, Shalker, Clark, & Karp, 1978), the use of efficient problem-solving strategies (Isen & Means, 1983), and the establishment of a cognitively complex mental environment for the making of judgments and decisions (Isen & Daubman, 1984).

Isen (1987), in her review of the research concerning positive affect, cognitive processes, and social behavior, finds considerable evidence that positive affect is associated with: 1) decreased aggressiveness (Baron, 1984), 2) increased cautiousness in threatening situations (Isen and Geva, 1987), 3) a problem-solving perspective during negotiations and a positive evaluation of both the process and the other participants (Carnevale & Isen, 1986), 4) increased cooperativeness, sociability, and benevolence to others and self (Mischel, Ebbesen, & Zeiss, 1976), and 5) high performance on tasks demanding innovation or creativity (Isen, Daubman, & Nowicki, 1987).

Evidence is found in several studies that self-enhancing perceptions improve motivation for achievement. Felson (1984) found that positive self-perceptions were associated with working longer and harder on tasks. Baumeister, Hamilton, and Tice (1985) investigated the relationship between high self-confidence and performance; they found that male and female

undergraduate college students who had high self-confidence solved more anagrams in a laboratory situation than students with lower expectations of success. Vasta & Brockner (1979) found that male and female undergraduate college students with high self-esteem evaluated their performance more positively than those with low self-esteem. These perceptions of high performance may feed back to enhance motivation; McFarlin & Blascovich (1981) found that people with high self-esteem make higher predictions of future performance, even when past performance could not justify such predictions.

The DSAP enables a participant to become aware of his or her positive personal attributes as perceived by others. The literature suggests that this increased awareness of positive qualities can lead to enhanced positive affect, which should result in higher levels of motivation and productivity. In addition, literature dealing with self-concept and self-esteem offers support for interventions that can lead to enhanced functioning; some of that literature is reported below.

Self-Concept

Harter (1985) has conducted extensive investigations of the processes that underlie the construction, maintenance, and enhancement of the self-concept of children. She concludes that a child's feelings about his or her self-worth strongly influence the degree to which the child feels happy or sad; in turn, the child's feelings of happiness or sadness exert a strong influence on the amount of interest and energy (motivational level) that the child has available.

Rhodewalt (1986) extensively reviewed the research concerning the stability and malleability of the self-concept; he concludes that the phenomenal self (the self of which a person is aware) is ever-shifting and mutable. Markus and Kunda (1986) manipulated the social environment of female university students so that they would find themselves to be very similar to, or very different from, other members of a small group. Markus and Kunda concluded from their postintervention measures that although the self-concept is relatively stable, it is also characterized by significant fluidity or malleability. Markus and Wurf (1987) in their review of a decade of recent

social psychology research concerning the nature of the self-concept conclude that the self-concept is a major regulator of current behavior; it is dynamic and is capable of change in response to the social environment.

Bruner (1986) theorizes that people appear to provide a sense of continuity in their self-concepts by constructing a current autobiography that harmoniously integrates their various experiences. The work of Greenwald (1980) and Ross and Conway (1986) indicates that the organization of this self-structure is highly flexible and malleable, enabling people to revise their personal histories frequently so as to uphold their present self-views.

Dweck and Leggett (1988) suggest two fundamentally different theories to conceptualize the self. Their *entity* theory holds that the self is a collection of fixed measurable traits or attributes. In contrast, in their *incremental* theory, the self is conceptualized as a complex of malleable qualities that evolves based on the efforts of the individual; attributes are seen as malleable and may be improved and developed. Each theory represents a different form of self-concept.

Hattie, in his discussion of his meta-analysis of 89 studies on self-concept change, states that "It is clear that the cognitively oriented programs are likely to produce more positive effects than affectively oriented programs. To enhance self-concept, programs may need to consider cognitive restructuring and goal- and task-oriented activities where positive thoughts and experiences are continually reinforced." (Hattie, 1992, p. 239). The DSAP is a cognitively oriented intervention that has the potential to meet these conditions.

Hattie states that "The key ingredients for successful programs to enhance self-concept are:

  (a) clearly articulating and matching outcomes to the individual's present processes of development of self-concept;

  (b) fully understanding the range, variation, and similarities of individuals' self-concept when working in a group situation;

  (c) using cognitive restructuring methods to aid in teaching individuals to make sense of their self and perceptions of their world;

  (d) using persons trained in the methods of cognitive restructuring and knowledgeable about the self-concept literature rather than

using teachers who tend to concentrate on enhancing achievement outcomes;

   (e) capturing the enthusiasm and variety by using shorter more concentrated programs over the duration of the treatment; and

   (f) ensuring that the measurement of the outcomes is appropriate and dependable." (Hattie, 1992, pp. 247-8)

  The literature supports the contention that although the self-concept is relatively stable it is also malleable. It should therefore be possible to help adolescents develop more positive self-concepts.

Self-Esteem

  Self-esteem is generally agreed to be the evaluative component of the self-concept. Crandall (1973) defines self-esteem as "liking and respect for oneself which has some realistic basis" (p. 45). He believes that although self-esteem theoretically can only be determined by directly asking people how much they like themselves, other sources of information, such as teacher evaluations, may provide more accurate measures of self-esteem. Wylie (1974) includes self-esteem within the "overall or very general evaluative attitude toward self" (p. 128) that she terms self-regard. Coopersmith (1981) defines self-esteem as an evaluation that a person makes and usually maintains concerning himself or herself that is "an expression of approval or disapproval, indicating the extent to which a person believes himself or herself competent, successful, significant and worthy" (p. 1). Pope, McHale and Craighead (1988) define self-esteem as the evaluative component of self-perception, the subjective evaluation of the objective information contained in the self-concept; this evaluation is based on a comparison of the ideal self (would-like-to-be image) and the perceived self (actual self-concept). Self-esteem is an attitude about self.

  Rosenberg (1965 & 1985) observes that high self-esteem people have high levels of self-acceptance and self-respect. He says that they like themselves. They consider themselves worthy, recognizing their limitations and expecting to grow and improve; low self-esteem people lack self-respect and their behavior may be characterized by self-dissatisfaction and self-rejection.

Dweck and Leggett (1988) suggest that there are two different sources of self-esteem. For children who exemplify their entity theory, self-esteem is established, maintained and enhanced by the accomplishment of performance goals that prove the adequacy of skills, abilities and attributes, or at least avoid the appearance of inadequacy. Children who exemplify Dweck and Leggett's incremental theory establish, maintain, and enhance their self-esteem through the accomplishment of challenging and valued learning goals by which they are able to improve their mastery of existing knowledge and skills, and/or acquire new knowledge and skills.

Gurney (1987) notes that self-esteem is generally considered to be a learned attitude, and like other attitudes, is relatively stable but changeable. Although attitude change is usually considered to be a difficult process, Forte (1975) concluded from his work with primary school age children that changes in self-esteem could occur during a brief educational process; he does caution that this relatively rapid change in self-esteem could be related to the age of the children.

In his review of self-esteem enhancement research, Gurney (1987) finds levels of self-esteem to be positively related to school achievement, increased acceptance of others, and less defensive behavior. Simon and Simon (1975), in their work with 10 to 12 year old public school children, found a significant positive relationship between children's self-esteem and their scores on standardized academic achievement tests. In studies involving college psychology students Suinn & Geiger (1965) found a significantly positive relationship between self-acceptance and the acceptance of others. Hauserman, Miller & Bond (1976) found that when low self-concept elementary school children were prompted to make positive self-referent verbal statements (PSRVS) following successful classroom experiences and the PSRVS were also followed immediately by positive reinforcers from a teacher or other adult, the self-concept scores for all of the children in the intervention group significantly increased. No change was shown by a control group. Gurney (1979) in a related study found evidence that the PSRVS self-esteem relationship persists over time.

Beane and Lipka (1986) suggest that if one wishes to enhance the self-esteem of adolescents, the intervention must first help them develop accurate

self-descriptions that are based on reality, and must then help them improve their self-evaluation skills so that they may see themselves in more positive terms that will enable them to develop a sense of personal worth. These researchers are supported by Pelham and Swann (1989) who found that young adults who had high levels of certainty (dependability) concerning positive self-views that they considered to be especially important were highly likely to have high global self-esteem. The DSAP facilitates this set of conditions. The strengths that a small group identifies for an individual are derived from the individual's good experiences, which should be considered important positive aspects of the person's life. That these strengths have been attributed to several good experiences and are recognized by the other members of the small group provides the aspect of certainty. Baumgardner (1990) also found that "certainty about self-attributes is associated with positive affect about the self." (p. 1062)

Self-esteem is viewed as a learned attitude about self, based largely on the self-concept and the values the individual uses to evaluate the self-concept. As an attitude it is relatively stable but malleable. The literature supports the contention that an appropriate intervention effectively executed can increase adolescent self-esteem.

Locus of Control.

There is a wide variation among people as to the extent that they believe their behavior influences the events of their lives. People who have an external locus of control believe that they do not have much control over what happens in their lives, but that outside factors, other people and events, or fate or luck influence most aspects of their lives. Individuals who have an internal locus of control believe that they are in control of most of their life events and that they are responsible for their grades in school and for the success of their careers. People with internal locus of control tend to be open to new challenges, to be more assertive and persistent, to be less anxious, and tend to cope well with stress; they also tend to be more socially and politically active, to be healthier, to have higher incomes and generally to be more successful in life than people with an external locus of control. (Phares, 1978; and Hill, 1978)

Gardner and Beatty (1980) indicate that their review of the research literature concerning locus of control leads to the conclusion that internals (as compared to externals) work harder to meet their goals, work more cooperatively with other people, are more self-reliant, place greater value on the improvement of their skills, and therefore learn more useful information in preparation for future performance. These attributes hold in both school and work settings and lead to higher levels of achievement.

Evidence from several sources relates motivation, persistence, and performance to beliefs in personal control. Brunstein & Olbrich (1985) investigated the performance of male and female university students under conditions of success and failure. They found that the students who had a high belief in personal control tended to respond to failure situations with self-motivating instructions and problem solving strategies. Whereas students who had low beliefs in personal control tended to respond to failure situations with self-evaluative statements and inadequate strategies. Burger (1985) investigated the relationship between performance on a series of anagram tasks and desire for control for male and female college students. He found that students with a high desire for control set higher more realistic standards of performance, and were more persistent in their response to challenging difficult tasks than students with a low desire for control.

Dweck and Leggett (1988) suggest that there are two different sources of locus of control. People who exemplify Dweck and Leggett's entity theory, perceive that control over event outcomes is conditioned upon the level of the particular traits or attributes that most influence specific events; only when pertinent attributes are judged to be strong will a person who operates within an entity framework perceive control over an event, whereas people who exemplify Dweck and Leggett's incremental theory are likely to have strong perceptions of control (internality). Even if one thinks that his or her present level of competence for a particular attribute is insufficient, the person who functions within an incremental framework knows that his or her competence can be enhanced to a higher level.

Eberhart and Keith (1989) note that educators have given an increasing amount of attention to the variables of locus of control and self-concept. Research findings suggest a positive correlation between these

variables. Diesterhaft & Gerken (1983) investigated the relationship between self-concept and locus of control for seventh grade students attending a racially integrated junior high school in a small midwestern city. They found that high self-concept and high internal locus of control were closely related for both male and female students. Eberhart and Keith (1989) point out that these findings should not be surprising, considering the similarity of self-concept and locus of control theories. It is not unreasonable to expect that people who have strong positive self-concepts would also think that they were in control of their lives.

Keith, Pottebaum & Eberhart. (1986) investigated the causal relationships between self-concept, self-esteem, locus of control and academic achievement. They used a nonexperimental path analysis technique to analyze the data for 27,718 high school seniors whose records are in the High School and Beyond longitudinal study (National Center for Education Statistics). Their findings suggest that locus of control has a strong positive influence on academic achievement and that a positive self-concept appeared to result in an increase in internal locus of control.

Both Phares (1978) and Rotter (1975) contend that an individual's locus of control is a generalized expectancy learned through past experiences, that it is not fixed, but that it is open to modification.

Denson (1992) recently found that college students who received a DSAP-based treatment as part of a career counseling intervention made a more significant shift in the direction of internal locus of control (measured by the Rotter inventory) than did other students who were assigned to an alternative treatment group and a control group.

Locus of control can be conceived as a learned attitude about self that is relatively stable but also subject to change; an appropriate intervention effectively executed should move students in the direction of enhanced internal locus of control.

Conclusion

The literature supports the assumptions underlying this investigation and the DSAP. The DSAP enables adolescents to become aware of and to validate important positive personal qualities. Awareness of important

personal qualities facilitates increased motivation, persistence, and productive performance. Self-concept, self-esteem, and locus of control are relatively stable but malleable self-perceptions that can be enhanced by an intervention such as the DSAP if it is effectively executed. The work of Dweck and Leggett (1988) does suggest some caution. People who exemplify Dweck and Leggett's entity theory may not benefit from the DSAP; however, people who exemplify Dweck and Leggett's incremental theory are likely to be promising candidates for the enhancement of self-concept, self-esteem, and locus of control through participation in a DSAP intervention.

Chapter III: Method

Overview of the Investigation

This investigation of the effectiveness of an intervention using the dependable strengths concepts as a strategy for enhancing adolescent self-esteem and locus of control was conducted in three phases:

1. Teacher training, winter and spring 1990,
2. Pilot intervention, fall 1990, and
3. Intervention and evaluation, spring 1991.

The investigation design was quasi experimental. The intervention was conducted in regular health classes, to which students were assigned through normal assignment procedures that approximate random assignment. A comparison group consisted of students who took the health course without the dependable strengths unit. Preintervention and postintervention measures were made for self-esteem and locus of control.

Participants

The intervention group consisted of three 10th grade spring semester health classes whose course included the dependable strengths unit. These three classes were all taught by the same instructor. The 10th grade class at this suburban high school in western Washington consists of about 450 students. The comparison group consisted of 10th grade physical education students who had previously had the same teacher for their health course at a time when the intervention unit was not included in the health course.

Dependent Variables and Instruments

The self-esteem variable was measured by the Piers-Harris Children's Self-Concept Scale (PHCSCS). Piers (1984) notes that her use of the term self-concept is phenomenological and that it is interchangeable with the term self-esteem. The PHCSCS was designed for use with 4th to 12th grade children and focuses on conscious self-perceptions. It consists of 80 declarative first-person statements ("I am a good reader." "I am lucky." "I have good ideas."), to which the child responds "yes" or "no." In addition to the

overall total scale score there are six subscales: behavior, intellectual and school status, physical appearance and attributes, anxiety, popularity, and happiness and satisfaction. Chiu (1988), citing Crandall (1973), Wylie (1974), Hughes (1984), and Jeske (1985), indicates that the PHCSCS is considered the most psychometrically sound of the instruments available for the assessment of the self-esteem of children, and highly recommends it as a research tool. The PHCSCS is one of the instruments that Wylie (1989) has included in her book *Measures of Self-Concept,* in which she reviews ten instruments that she suggests might be useful to researchers. She states that she has included only those instruments that have been subjected to the relevant psychometric technologies and that have been found to have no serious methodological shortcomings.

The locus of control variable was measured by the Rotter Internal-External Locus of Control Scale (Rotter), a widely used personality scale developed within the context of social learning theory. This scale measures the degree to which people believe themselves to exercise control over the major aspects of their lives. It is a forced-choice self-report inventory that asks respondents to designate which statement they personally believe to be more true in each of 29 statement pairs. Only 23 of the statement pairs are used for scoring; high scores indicate a greater degree of external locus of control. Rotter (1966) discusses a number of investigations that support the discriminant and construct validity of this instrument. Layton (1985) reports a test-retest reliability coefficient of 0.57 for the Rotter for 16 year old students; Taylor (1989) cites test-retest reliabilities of 0.60 and 0.78. These are within the range of 0.49 to 0.83 reported by Rotter (1966) and of 0.43 to 0.84 reported by Hersch and Scheibe (1967). This scale was used to measure the extent to which the students shifted their locus of control as a result of the intervention.

Teacher Training, Winter and Spring 1990

During the winter and spring of 1990, this investigator trained two health teachers to use the dependable strengths concepts. The teachers participated in 21 hours of discussion and planning sessions and completed collateral reading assignments in *Self-Concept Self-Esteem and the*

Curriculum (Beane & Lipka, 1986) over five weeks in January and February. The teachers developed a plan of instruction for use in their spring semester health courses. Their plan of instruction included eight 55-minute periods of instruction; it was based on well documented approaches for using the dependable strengths concepts found in:

1. *Job Finding Power* (Haldane and Haldane, 1984), a manual for Dependable Strengths Articulation Process (DSAP) workshop facilitators,

2. *Dependable Strengths: Curriculum Unit, Grades 9-12 (second draft)* (Boivin-Brown, 1990), a manual for a 10 session DSAP intervention with high school students, and

3. *The Dependable Strengths Project: For Middle / Junior High School Groups (draft)* (Ansley, 1990), a manual for a DSAP intervention with middle school or junior high school students.

Both teachers used the dependable strengths unit in late February and early March in the three health courses that they each taught.

The investigator's initial intent was to evaluate the DSAP as a strategy for enhancing student self-esteem and internal locus of control during the spring 1990 intervention. However, it soon became evident that more refinement would be required to adapt the DSAP to 55-minute class sessions involving one teacher and 30 to 36 high school students. It was concluded that this intervention would be considered a training activity for the teachers and a pilot study for the investigator.

There were several serious problems. Many students indicated that they did not view the instruction as part of the health course, and were thus reluctant to participate in the classroom activities.

The DSAP documentation implicitly assumes that adolescent students will participate willingly in the small-group sharing of good experiences. It soon became clear that many students were reluctant to share their good experiences in the small groups. This reluctance to participate in the small groups was critical because the small-group sharing of good experiences and the feedback of strengths from peers is the heart of the DSAP intervention. If this small-group work is not completed effectively, the intervention is likely to fail.

The extant DSAP documentation contained sufficient information concerning *what* activities could be used in the classroom to facilitate an understanding of dependable strengths. However, it was deficient in describing *how* to orchestrate the DSAP in a high school setting and *how* to accomplish the classroom activities effectively.

It should thus have come as no great surprise that the spring 1990 intervention was less than successful. Parkman and Chapman (1989) and McCarty (1991) make the point that the introduction and evaluation of a new intervention program into a public school system normally requires at least three years. They suggest that about a year should be planned for each of three major phases:

1. Plan and sell the project,
2. Train teachers and conduct a pilot intervention, and
3. Refine, conduct, and evaluate the intervention.

However, a great deal was learned in the spring of 1990 about *how* to incorporate the dependable strengths concepts into a 10th grade health course. Noteworthy learnings by the teachers and the investigator are discussed in Chapter V.

At the end of spring semester 1990, one highly qualified teacher, referred to as the intervention teacher, emerged as the critical teacher for the remainder of the investigation. She became the teacher for the pilot intervention in the fall of 1990 and for the evaluation intervention in the spring of 1991. Her choice as intervention teacher was based on three critical factors:

1. She is student focused, with what McCarty (1990) describes as a self-esteem affirming style; she is sincerely dedicated to helping her students grow, and most of them know it.

2. She is respected for her competence and thorough knowledge of health course material.

3. She believes in the dependable strengths concepts. She devoted much thought and effort to revising the unit of instruction so that it could be effectively integrated into her fall semester 1990 health course.

Pilot Intervention, Fall 1990

The intervention teacher used the dependable strengths concepts in three health classes in the fall of 1990. The main goals for the pilot intervention were:

1. To integrate the unit into the overall health course so that it would be accepted by the students as a logical part of the course,

2. To refine the timing and the flow of activities within the constraint of 55-minute classroom sessions, and

3. To incorporate small-group and trust-building activities early in the semester, before the DSAP small-group work.

Twenty hours of instruction related to self-perception, already a part of the course, were presented before the dependable strengths unit. This instruction was spread over the months of September, October and November. The intervention teacher modified the way that some of this material was presented so that it included trust-building exercises. Some of these activities required the students to write about themselves and then to talk about themselves in small groups. The intent was to make the small-group work in the DSAP a natural task to which the students would already be accustomed rather than have them view it as an uncomfortable new experience.

A four-day self-concept unit preceded the dependable strengths unit; in effect, the dependable strengths became a practical exercise to crystallize the positive self-perception concepts presented during the self-concept unit.

Nine 55-minute periods of instruction using dependable strengths concepts were presented during the first two weeks of December 1990, two-thirds of the way through the semester. Because of the earlier activities involving trust building in small groups, more time was devoted to the good experience concept early in the unit and more time was devoted at the end of the unit to exercises designed to help the students acknowledge and take ownership of their strengths.

Near the end of the semester, a 10th day was devoted to a review of the dependable strengths concepts, including small-group discussions of recent good experiences.

Although the dependable strengths unit appeared to have been of benefit to many students, some of the problems encountered in the spring of 1990 persisted. Some students still listed good experiences that were limited and stereotyped, leading to the identification of strengths that were limited and stereotyped. Concrete versus abstract thinking remained a problem for some students, even though specific classroom activities were used to address this problem.

Intervention and Evaluation, Spring 1991

In the spring of 1991 the investigator and the intervention teacher believed that they had a reasonable grasp of both the *what* and the *how* of effectively using the dependable strengths concepts in a 10th grade health course. She presented the dependable strengths concepts material to her three regular health classes during the spring semester 1991.

The design of the spring 1991 intervention evaluation was quasi experimental. Students were assigned to the intervention classes through the normal assignment procedures. A comparison group was identified by using data collected from students who had taken the health course from the same teacher a year earlier before she had started using the dependable strengths unit. Preintervention and postintervention measures were made for self-esteem and locus of control. The preintervention scores were used as a covariate to compensate for the fact that it was not possible to randomly assign students to classes.

The classes received the instructional unit using dependable strengths concepts just over half way through the semester. The overall plan of instruction for the course was the same as that used in the fall of 1990 pilot study. In addition to the nine class hours of instruction presented during the unit using dependable strengths concepts, the intervention teacher devoted a class session near the end of the semester to a review of the dependable strengths concepts and the sharing of recent good experiences in small groups. The main activities of the ten class sessions of the intervention are listed below.

Session 1. The students participated in a trust-building exercise. The teacher discussed the good experience concept. The

homework assignment was to think of several good experiences.

Session 2. The students participated in good experience exercises, first as an entire class, then in small groups. The students also participated in perception exercises designed to help them view things from different perspectives. The homework assignment was to think about several more good experiences.

Session 3. The students participated in more perspective exercises designed to help them go beyond restrictive boundaries in their thinking. The teacher led a discussion as a review of the good experience concept, and students then shared good experiences in pairs. The homework assignment was to prepare a list of good experiences.

Session 4. The students prioritized their good experiences. The teacher conducted a demonstration of the strengths articulation procedure; students then shared good experiences and identified strengths in small groups.

Session 5. The students continued to share good experiences and identify strengths in small groups.

Session 6. The students organized their strengths, conducted a reality test of their strengths, and wrote self-descriptive paragraphs using their strengths.

Session 7. Each student wrote a "Capabilities Report" stating several strengths and citing examples of how each strength had been used. Sample capabilities reports are attached as Appendix A.

Session 8. The students completed their capabilities reports and then began work on oral reports of strengths to be presented to their classes during the 9th session. The homework assignment was for each student to complete his or her preparation for an oral presentation of strengths.

Session 9. The students made their oral presentations of strengths. These presentations were in a variety of forms, from simple statements to poems; some students also prepared collages to illustrate their strengths. A sample statement and several poems are attached as Appendix B. The teacher reviewed the instructional unit.

Session 10. The teacher led a review discussion of the dependable strengths concepts; the students then discussed recent good experiences in small groups.

The PHCSCS and the Rotter were completed by the students in all three classes as preintervention measurements prior to the classes receiving the unit of instruction and again at the end of the semester for an evaluation of the end-of-semester results of the intervention.

Data Analysis

The primary analysis used the postintervention measurements taken near the end of the semester as dependent variables for a two by two factorial analysis of variance of the PHCSCS and the Rotter scores. The scores for the measurements made prior to the intervention were used as a covariate. In addition to determining whether there was a difference in the dependent variables between the intervention group and the comparison group, the analysis determined whether there was a difference in the dependent variables based on gender. The preintervention scores were used as the covariate to compensate for the fact that it was not possible to randomly assign students to classes (Ferguson, 1981).

A secondary analysis, to determine if there was any effect immediately after the intervention was also made. The number of scores collected for this analysis was lower than desired and the subsequent analysis failed to show significant results. This data was judged to be incomplete and relegated to Appendix C.

Piers-Harris Children's Self-Concept Scale

Three of the seven Piers-Harris Children's Self-Concept Scale (PHCSCS) scales indicate a significantly greater improvement in self-esteem for the intervention group than for the comparison group.

The PHCSCS Total Score Scale results are presented in Table I. These data are presented by intervention and comparison groups; they include group size, preintervention score means, postintervention score means, adjusted postintervention score means, and the value of the significance of F. These results are significant (p = 0.039).

Table I. End-of-Semester Results: PHCSCS Total Score Scale, by Group.

| Group | N | Group Mean Scores | | |
		Pre	Post	Adjusted Post
Intervention	67	59.98	61.85	61.95
Comparison	46	60.26	58.98	58.83

Significance of F: p = 0.039

The results for the PHCSCS Physical Appearance and Attributes scale are presented in Table II. These results are significant (p = 0.012).

Table II. End-of-Semester Results: PHCSCS Physical Appearance and Attributes Scale, by Group.

| Group | N | Group Mean Scores | | |
		Pre	Post	Adjusted Post
Intervention	67	9.32	10.12	10.17
Comparison	46	9.48	9.13	9.06

Significance of F: p = 0.012

The PHCSCS Popularity scale results are presented in Table III. These results are significant (p = <0.001).

Table III. End-of-Semester Results: PHCSCS Popularity Scale, by Group.

		Group Mean Scores		
Group	N	Pre	Post	Adjusted Post
Intervention	67	8.39	9.40	9.60
Comparison	46	9.00	8.61	8.32

Significance of F: p = <0.001

The end-of-semester PHCSCS results indicate a difference between the two groups that approaches significance for two scales. The results for the PHCSCS Anxiety scale are presented in Table IV. Although these results are nonsignificant, it is of interest that p = 0.087.

Table IV. End-of-Semester Results: PHCSCS Anxiety Scale, by Group.

		Group Mean Scores		
Group	N	Pre	Post	Adjusted Post
Intervention	67	9.66	10.24	10.51
Comparison	46	10.51	10.17	9.79

Significance of F: p = 0.087

The Happiness and Satisfaction scale results are presented in Table V. Although these results are nonsignificant, it is noted that p = 0.064.

Table V. End-of-Semester Results: PHCSCS Happiness and Satisfaction Scale, by Group.

		Group Mean Scores		
Group	N	Pre	Post	Adjusted Post
Intervention	67	8.09	8.45	8.63
Comparison	46	8.61	8.39	8.13

Significance of F: p = 0.064

The end-of-semester PHCSCS results indicate a nonsignificant difference between the two groups for the remaining two PHCSCS scales. The results for the Behavior scale are presented in Table VI. The results are nonsignificant (p = 0.758).

Table VI. End-of-Semester Results: PHCSCS Behavior Scale, by Group.

		Group Mean Scores		
Group	N	Pre	Post	Adjusted Post
Intervention	67	13.80	13.78	13.59
Comparison	46	13.28	13.20	13.47

Significance of F: p = 0.758

The PHCSCS Intellectual and School Status scale results are presented in Table VII. They are nonsignificant (p = 0.718).

Table VII. End-of-Semester Results: PHCSCS Intellectual and School Status Scale, by Group.

		Group Mean Scores		
Group	N	Pre	Post	Adjusted Post
Intervention	67	12.83	13.03	12.98
Comparison	46	12.67	12.74	12.81

Significance of F: p = 0.718

The end-of-semester results for the PHCSCS and its subscales indicate a nonsignificant difference by gender. Table VIII summarizes the results for the PHCSCS total score scale by gender; there is no significance difference between females and males for this scale (p = 0.965). The group by gender interaction for the total score scale is also nonsignificant (p = 0.435). All of the subscales are nonsignificant (p = 0.480 or larger); the group by gender interactions for the subscales are also nonsignificant (p = 0.163 or larger).

Table VII. End-of-Semester Results: PHCSCS Total Score Scale, by Gender.

Gender	N	Pre	Post	Adjusted Post
		Gender Mean Scores		
Female	58	60.27	60.69	60.53
Male	55	59.90	60.67	60.84

Significance of F: p = 0.965

Rotter Internal-External Locus of Control Scale

The end-of-semester results for the Rotter Internal-External Locus of Control Scale (Rotter) are nonsignificant by group (intervention and comparison), but are significant by gender (p = 0.027). Group by gender interaction, however, is nonsignificant (p = 0.349). The results are summarized in Table IX by intervention and comparison groups, and in Table X by gender.

Table IX. End-of-Semester Results: Rotter Internal-External Locus of Control Scale, by Group.

Group	N	Pre	Post	Adjusted Post
		Group Mean Scores		
Intervention	67	9.07	9.28	9.44
Comparison	46	9.80	10.50	10.27

Significance of F: p = 0.144

Table X. End-of-Semester Results: Rotter Internal-External Locus of Control Scale, by Gender.

Gender	N	Pre	Post	Adjusted Post
		Gender Mean Scores		
Female	58	9.00	8.98	9.18
Male	55	9.75	10.62	10.41

Significance of F: p = 0.027

Research Hypotheses

Research hypothesis 1 is supported. *The self-esteem of students who receive instruction using dependable strengths concepts will be greater than the self-esteem of those students who do not receive instruction using dependable strengths concepts.* Students in the intervention group scored significantly higher on the PHCSCS total score scale and on two of the six PHCSCS subscales than the students in the comparison group, as reflected in Table I, Table II and Table III.

Research hypothesis 2 is not supported. *The locus of control of students who receive instruction using dependable strengths concepts will reflect greater internality than the locus of control of those students who do not receive instruction using dependable strengths concepts.* The locus of control scores were not significantly different for the intervention group and the comparison group, as reflected in Table IX.

The end-of-semester sample included 113 cases (67 in the intervention group and 46 in the comparison group). Of these, 14 (six in the intervention group and eight in the comparison group) had valid PHCSCS postintervention test data but no usable preintervention test data; by-group by-gender mean scores were used as estimates of the preintervention test scores for these subjects (Hedderson, 1987).

Observed Student Behavior

The results of the measurements and whether or not they support the research hypotheses are important. The intervention teacher's observations of student behavior during and after the intervention are also important. The intervention teacher reported that during the dependable strength unit, most of her students were willing to talk about themselves, experienced some of the dependable strength exercises as fun, and worked seriously on task in their small groups. More importantly, she also observed a positive change in classroom environment that developed during the intervention and that persisted for the rest of the semester. She observed that the students were less hostile toward one another and were more considerate of others' feelings and needs. The teacher also reported that the students were more cooperative with one another and with her.

Chapter V: Discussion

Discussion of Results

The positive results reflected by the scores on the Piers-Harris Children's Self-Concept Scale (PHCSCS) support continuing research on the application of the dependable strengths concepts in educational settings.

These results present empirical evidence that an intervention using the dependable strengths concepts can bring about a positive change in the self-esteem of 10th grade students.

The significant difference between the intervention group and the comparison group on the PHCSCS total score scale, as reflected in Table I, is particularly noteworthy; Piers (1984) considers this scale to have the best research support and to be the most reliable of the Piers-Harris scales.

The PHCSCS scale on attributes and physical appearances measures attributes such as leadership and the ability to express ideas as well as attitudes about physical appearance. This subscale consists of thirteen items such as: "My friends like my ideas" and "I have pretty eyes." The significant difference between the intervention group and the comparison group reflected in Table II is also particularly noteworthy. Much of the feedback that the students received during the DSAP small-group work was about personal attributes such as their ability to express themselves and the leadership roles that they play. Also young adolescents have more concern for their physical appearance than for any other personal characteristic (Clifford, 1971).

The PHCSCS scale on popularity measures a child's evaluation of his or her ability to make friends, likelihood of being chosen for games, and popularity with peers. The scale consists of twelve items such as: "I have many friends" and "I am different from other people." The strong significance (p = <0.001) of the difference between the intervention and the comparison groups is of particular interest. This investigator suggests that the DSAP, as an interactive procedure, brings about an increased acceptance by others of an individual and his or her personal qualities, while at the same time, the procedures enable the individual to become aware of that acceptance. This result is considered noteworthy because students at this age are quite concerned about social acceptance by their peers (Harter, 1987).

Together, the above results are quite noteworthy. Scarr, Weinberg and Levine (1986) conclude that social acceptance among adolescents is strongly influenced by physical appearance. Harter (1987) found that physical appearance and popularity were the dominant determinants of global self-worth for children ages 8 to 15. The subjects of this investigation were ages 15 to 17.

Some of the literature reviewed before the intervention suggested there might be a difference in the self-esteem enhancement results based on gender (Diesterhaft & Gerken, 1983). However, no significant difference in the PHCSCS results was found for female and male students; this finding is supported by more recently published information. Based on his extensive review and evaluation of studies of self-concept enhancement, Hattie (1992) concluded that the gender of subjects is not an important moderator variable when using self-concept scales.

The nonsignificant results for the Rotter Internal-External Locus of Control Scale were somewhat surprising. Denson (1992) recently found that college students who received a DSAP-based treatment as part of a career counseling intervention made a more significant shift in the direction of internal locus of control (measured by the Rotter inventory) than did other students who were in an alternative treatment group and a control group.

In addition to the results obtained from the analysis of the instruments, it is important to note that the intervention teacher reported that a noticeably positive social atmosphere developed in her classroom during the DSAP intervention and that it persisted for the remainder of the semester. She observed that the students were less hostile toward one another and more considerate of others' feelings and needs. She also observed that they worked more cooperatively together and with her. Based on the positive results obtained for the PHCSCS, it is quite reasonable to expect the kind of student behavior that the intervention teacher observed. Students who experience an enhancement of their overall feelings of self-worth (Table I), an enhancement of their feelings of personal qualities and appearance (Table II), and who feel that they are accepted and appreciated by their peers (Table III) are in a position to behave in more constructive ways and not to feel threatened. Richardson and Rayder (1992) report similar results; they

observed the establishment of a supportive environment for positive student social interaction within groups of high school students during and after interventions designed to enhance student self-esteem.

Limitations of the Design

There are several aspects of the intervention design that are cause for concern and must be kept in mind when considering the end-of-semester results of this investigation.

1. The intervention took place in the context of a health course that already contained a significant amount of material related to self-perception. There was an attempt to compensate for this preexisting content by administering the preintervention PHCSCS and Rotter instruments after the other self-perception related material had been presented but before the dependable strengths intervention.

2. The results were obtained under relatively ideal conditions and may be highly sensitive to the intervention teacher's experience, enthusiasm, commitment to her students, and her interest in the dependable strengths concepts. In an attempt to compensate for the positive impact that this particular teacher seems to have on her students, only students who previously were in her health course were selected for the comparison group. It is noted that the preintervention PHCSCS total scale scores for the intervention and comparison groups are approximately equal (59.98 and 60.26 respectively, Table I).

3. The intervention teacher was fully aware of the objectives of this investigation.

4. The design is quasi experimental; the subjects were real-world students who may not have found their way into their particular health course classes as the result of a random process.

5. The measures for the comparison and the intervention groups were taken a year apart. The intervention teacher and other school staff members were not aware of any school events in the spring of 1990 that may have affected the PHCSCS results for the comparison group. However, a strike by the teachers at the site of the intervention interrupted the intervention for eight days during the second week of the intervention in the

spring of 1991. This interruption could have degraded the benefit that the students received from this intervention.

Implications for Future Research

The adaptation of the dependable strengths concepts for use in a high school health course was a time-consuming task. A health course such as the one involved in this investigation is seen as probably the most appropriate place in the high school curriculum to incorporate the dependable strengths concepts. The concepts easily can be integrated meaningfully into the mental health unit of the health course. Now, with evidence of success, consideration should be given to an evaluation of the use of the concepts using a larger number of students and, if possible, a design that more closely approximates a true experiment. Also, with evidence of success at the high school level, serious consideration should now be given to the development of needs-based curricula for evaluation at both the middle school and elementary school levels if appropriate needs can be defined.

Lessons Learned

A number of important lessons were learned during this investigation. Most of this learning process occurred in the spring of 1990 and concerned the issue of *how* to incorporate the dependable strengths concepts into a high school course. These important lessons learned from the health teachers and the students concern two areas, work with students in the classroom and the management or orchestration of the intervention.

The teachers incorporated several ideas that solved specific classroom problems. These procedures should be incorporated in the DSAP documentation.

1. The teacher should use herself or himself as a role model and discuss a true personal good experience to enhance the explanation of the good experience concept and to demonstrate to the students that it is acceptable to talk positively about a personal accomplishment.

2. The teacher should use herself or himself as a role model and discuss a second personal good experience for the first demonstration of the strength articulation procedure. This activity enhances students'

understanding of the procedure and demonstrates that it is not only acceptable to talk about having enjoyed doing something really well, but that it is also acceptable to acknowledge one's strengths.

3. Average students should be used for the second and third demonstrations of the strength articulation procedure. An effective teacher can demonstrate the procedure using average students. The use of student superstars to demonstrate the procedure may be counterproductive in that the use of outstanding students, with exceptionally good experiences leading to the identification of exceptional strengths, may cause some low self-esteem students to feel threatened, intimidated, or embarrassed. If negative feelings are engendered, the objective of helping students enhance their self-esteem and internal locus of control will be undermined.

4. With as many as 36 students in a class, keeping the small groups on task may be a problem. It was found that the groups were more effective if they were structured so that each group had at least one well-organized high-performance student who could be expected to keep the group on task, not more than one poor-performance student, and two or three average students. The small groups that were structured in this manner were noticeably more effective than the randomly formed groups.

5. The small groups should consist of five students, rather than the four participants indicated in the DSAP documentation. Five-student groups can continue to function with at least three students present if one or two students are absent. Class attendance was such that one or two members of some small groups were absent each day.

6. Students should be instructed to share their good experiences, one good experience at a time, in turn, in the small groups. Feedback of strengths should be given to each student immediately after he or she has shared and discussed each good experience (this procedure should also be used for the demonstrations). This procedure insures that each student is the focus of attention and is given positive feedback at least two or three times during each of the class sessions in which good experiences are shared and explored for strengths.

7. Oral, as well as written, self-reports should be used to facilitate student ownership of their strengths. Students may be asked, as

homework for the last session of the unit, to prepare a short oral presentation to the rest of the class emphasizing their strengths. These oral reports of strengths may be simple oral statements, or the reading of poems that the students have written about their strengths, or statements of strengths illustrated by collages, or whatever the students wish to do to make statements of their strengths. The students should also be asked to indicate how these strengths have been used in the past, and how they wish to use their strengths in the future.

There were three important lessons learned concerning the management or orchestration of the intervention.

1. The dependable strengths concepts unit should be well integrated into the course in which it is presented. The number of times during the spring of 1990 intervention that students asked "Why are we doing this?" indicated that they did not view the unit as a logical part of the health course. McCarty (1990) stresses the point that classroom activities intended to improve student self-esteem must be seen by the students as a logical part of the course in which they are presented if the students are to be expected to participate seriously. Instructional units that are intended to enhance student self-esteem are unlikely to succeed if they are viewed by the students as "add-on" or "filler" units unrelated to the courses in which they are presented. It was also noted that the students became more motivated after potential applications of the dependable strengths concepts were brought to their attention. For example, students can be shown how the knowledge of their dependable strengths can help them in job interviews for part-time or summer employment. When this was done, the level of participation in the DSAP activities increased.

2. The intervention should be conducted near the middle of the term. Trust-building activities conducted in small groups in which the students talk about themselves should be included in the course before the intervention. These activities should enhance the students' knowledge and trust of one another and of the teacher so that they will participate with little hesitation in the DSAP procedures that require small-group self-disclosure. During the spring of 1990 intervention many students were reluctant to talk about themselves and did not work well together in the small groups. Since

the small-group work is the heart of the intervention, it must be effective. If it is not, the DSAP intervention is likely to fail. McCarty (1991) believes that it takes adolescents at least three to four weeks in a new classroom situation to become socially comfortable with other students and with the teacher.

3. Teacher styles and classroom management effectiveness can significantly influence the success of the intervention. McCarty (1990) believes that teachers must have what he refers to as a self-esteem affirming style and truly be committed to their students' growth and development if classroom activities intended to enhance their students' self-esteem are to be successful. Hattie (1992) considers the instructor of a self-concept enhancing program to be a critical variable.

Conclusions and Recommendations

Although the results of this quasi experimental investigation do not offer as strong a case for the attribution of causality to the treatment as a true experiment would offer, the results do support a presumptive conclusion that the intervention affected the self-esteem of the students.

It is clear that this is an area that requires more research. It seems important that we find better ways to help adolescents as they struggle to establish identities independent of their parents and other adults. It is important, both for them and for society in general, that they develop self-concepts that will enable them to have high self-esteem.

The results of this investigation are encouraging and suggest that the Dependable Strengths Project should conduct a follow-up investigation with a larger number of students under conditions that more closely conform to a true experiment. It is also suggested that needs-based curricula should be developed and evaluated for use in middle and elementary schools.

List of References

Alicke, M. D. (1985). Global self-evaluation as determined by the desirability and controllability of trait adjectives. *Journal of Personality and Social Psychology, 49,* 1621-1630.

Ansley, J. B. (1990). *The dependable strengths project for middle / junior high school groups.* Unpublished draft.

Baron, R. A. (1984). Reducing organizational conflict: An incompatible response approach. *Journal of Applied Psychology, 69,* 272-279.

Baumeister, R. F., Hamilton, J. C., & Tice, D. M. (1985). Public versus private expectancy of success: Confidence booster or performance pressure? *Journal of Personality and Social Psychology, 48,* 1447-1457.

Baumgardner, A. H. (1990). To know oneself is to like oneself: Self-certainty and self-affect. *Journal of Personality and Social Psychology, 58,* 1062-1072.

Beane, J. A., & Lipka, R. P. (1986). *Self-concept self-esteem and the curriculum.* New York: Teachers College Press, Columbia University.

Boivin-Brown, A. (1990). *Dependable strengths: Curriculum unit grades 9 - 12 (second draft).* Unpublished draft.

Brown, J. D. (1986). Evaluation of self and others: Self-enhancement biases in social judgments. *Social Cognition, 4,* 353-376.

Bruner, J. (1986). *Actual minds, possible worlds.* New York: Plenum.

Brunstein, J. C., & Olbrich, E. (1985). Personal helplessness and action control: Analysis of achievement-related cognitions, self-assessments, and performance. *Journal of Personality and Social Psychology, 48,* 1540-1551.

Burger, J. M. (1985). Desire for control and achievement-related behavior. *Journal of Personality and Social Psychology, 48,* 1520-1533.

Carnevale, P. J. D., & Isen, A. M. (1986). The influence of positive affect and visual access on the discovery of integrative solutions in bilateral negotiation. *Organizational Behavior and Human Decision Processes, 37,* 1-13.

Chiu, L. H. (1988). Measures of self-esteem for school age children. *Journal of Counseling and Development, 66,* 298-301.

Clifford, E. (1971). Body ratification in adolescence. *Perceptual and Motor Skills, 33,* 119-125.

Coopersmith, S. (1981). *Self-esteem inventories.* Palo Alto, CA: Consulting Psychologists Press.

Crandall, R. (1973). The measurement of self-esteem and related constructs. In J. Robinson & P. Shaver (Eds.), *Measures of social and psychological attitudes (pp. 45-168).* Ann Arbor, MI: Institute for Social Research.

Denson, E. L. (1992). *An investigation of the effects of two career counseling interventions upon psychological well-being, self-efficacy, and locus of control.* Doctoral dissertation, University of Washington, Seattle, WA.

Diesterhaft, K., & Gerken, K. (1983). Self-concept and locus of control as related to achievement of junior high students. *Journal of Psychoeducational Assessment, 1,* 367-375.

Dweck, C. S., & Leggett, E. L. (1988). A social-cognition approach to motivation and personality. *Psychological Review, 95,* 256-273.

Eberhart, S. W., & Keith, T. Z. (1989). Self-concept and locus of control: Are they causally related in secondary students? *Journal of Psychoeducational Assessment, 7,* 14-30.

Epting, F. R. (1984). *Personal Construct Counseling and Psychotherapy.* New York: John Wiley & Sons.

Erikson, E. H. (1950). *Childhood and society* (2d ed.). New York: Norton.

Felson, R. B. (1984). The effect of self-appraisals of ability on academic performance. *Journal of Personality and Social Psychology, 47,* 944-952.

Ferguson, G. A. (1981). *Statistical analysis in psychology and education.* New York: McGraw-Hill Book Co.

Forster, J. R. (1985). Investigating personal goals using personal construct theory and grid methods. In L. F. Epting & A. W. Landfield (Eds.), *Anticipating personal construct psychology* (pp. 261-271). Lincoln, NE: University of Nebraska Press.

Forster, J. R. (1986). *Goals review and organizing workbook.* Unpublished instrument, Clinical Services and Research Center, University of Washington, Seattle, Washington.

Forster, J. R. (1989). *Rationale of the dependable strengths articulation process.* Ann Arbor, MI: University of Michigan, ERIC Clearinghouse on Counseling and Personnel Services. (ERIC Document Reproduction Service No. ED 305 573)

Forster, J. R. (1991). Facilitating positive changes in self-constructions. *International Journal of Personal Construct Psychology, 4,* 281-2292.

Forte, E. J. (1975). The effects of individualized instruction on the improvement of self-concept of low achievement primary grade urban children. Unpublished Ph.D. dissertation, Walden University.

Gardner, D., & Beatty, G. (1980). Locus of control change techniques: Important variables in work training. *Education, 100.* 237-242.

Greenwald, A. G. (1980). The totalitarian ego: Fabrication and revision of personal history. *American Psychologist, 35,* 603-618.

Gurney, P. W. (1979). The use of behaviour modification to increase the level of self-esteem in maladjusted boys. Unpublished Ph.D. dissertation, University of Exeter.

Gurney, P. (1987). Self-esteem enhancement in children: A review of research findings. *Educational Research, 29,* 130-136.

Haldane, B. (1981). *Career satisfaction and success: How to know and manage your strengths.* New York: AMACOM.

Haldane, B. (1988). *The dependable strengths articulation process (DSAP).* Unpublished papers, The Dependable Strengths Project, Clinical Services and Research Center, University of Washington, Seattle, Washington.

Haldane, B. (1989). *The dependable strengths articulation process: How it works.* Ann Arbor, MI: University of Michigan, ERIC Clearinghouse on Counseling and Personnel Services. (ERIC Document Reproduction Service No. ED 305 575)

Haldane, B., & Forster, J. R. (1992). *A five year report on the Dependable Strengths Project, College of Education, University of Washington.* Unpublished papers, The Dependable Strengths Project, Clinical Services and Research Center, University of Washington, Seattle, Washington.

Haldane, B., & Haldane, J. (1984). *Job finding power.* Office for Ministry Development: Education for Mission and Ministry of the Episcopal Church.

Haldane, B., Haldane, J., & Martin, L. (1980). *Job power: The young people's job finding guide.* Washington, DC: Acropolis Books Ltd.

Harter, S. (1985). Processes underlying the construction, maintenance, and enhancement of the self-concept in children. In J. Suls & A. G. Greenwald (Eds.), *Psychological perspectives on the self* (Vol. 3, pp. 137-181). Hillsdale, NJ: Erlbaum.

Harter, S. (1987). The determinants and mediation role of global self-worth in children. In N. Eisenberg (Ed.), *Contemporary topics in developmental psychology* (pp. 2219-242). New York: Wiley.

Hattie, J. (1992). *Self-Concept.* Hillsdale, NJ: Lawrence Erlbaum Publishers.

Hauserman, N., Miller, J. S., & Bond, F. T. (1976). A behavior approach to changing self-concept in elementary school children. *Psychological Record, 26,* 111-116.

Hedderson, J. (1987). *SPSS made simple.* Belmont, CA: Wadsworth Publishing Co.

Hersch, P. D., & Scheibe, K. E. (1967). Reliability and validity of internal-external control as a personality dimension. *Journal of Consulting Psychology, 6,* 609-613.

Hill, R. (1978). Internality: An educational imperative. *Journal of Humanistic Psychology, 31,* 43-57.

Isen, A. M. (1987). Positive affect, cognitive processes, and social behavior. *Advances in Experimental Social Psychology, 20,* 203-253.

Isen, A. M., & Daubman, K. A. (1984). The influence of affect on categorization. *Journal of Personality and Social Psychology, 47,* 1206-1217.

Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology, 52,* 1122-1131.

Isen, A. M., & Geva, N. (1987). The influence of positive affect on acceptable level of risk: The person with the large canoe has a large worry. *Organizational Behavior and Human Decision Processes, 39,* 145-154.

Isen, A. M., & Means, B. (1983). The influence of positive affect on decision-making strategy. *Social Cognition, 2,* 18-31.

Isen, A. M., Shalker, T., Clark, M., & Karp, L. (1978). Affect, accessibility of material in memory, and behavior: A cognitive loop? *Journal of Personality and Social Psychology, 36,* 1-12.

Jeske, P. J. (1985). Piers-Harris Children's Self-Concept Scale. In J. V. Mitchell, Jr. (Ed.), *Ninth mental measurements yearbook (Vol. 1, pp. 1169-1170).* Lincoln: University of Nebraska, Buros Institute of Mental Measurement.

Keith, T. Z., Pottebaum, S. M., & Eberhart, S. (1986). Effects of self-concept and locus of control on academic achievement: A large-sample path analysis. *Journal of Psychoeducational Assessment, 4,* 61-72.

Kelly, G. (1955). *The psychology of personal constructs.* New York: Norton.

Kuiper, N. A., Olinger, L. J., MacDonald, M. R., & Shaw, B. F. (1985). Self-schema processing of depressed and nondepressed content: The effects of vulnerability on depression. *Social Cognition, 3,* 77-93.

Layton, C. (1985). Note on the stability of Rotter's I-E scale. *Psychological Reports, 57,* 1165-1166.

Markus, H., & Kunda, Z. (1986). Stability and malleability of the self-concept. *Journal of Personality and Social Psychology, 51,* 858-866.

Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology, 38,* 299-337.

McCarty, Hanoch (1990). *Self-esteem: The bottom line in school success.* Galt, California: Hanoch McCarty & Associates.

McCarty, Hanoch (1991). *Self-esteem; The bottom line.* Keynote address for workshop: Building Self-Esteem: Twenty-five Ideas for Monday. Sponsored by the Puget Sound ESD, February 9, 1991.

McFarlin, D. B., & Blascovich, J. (1981). Effects of self-esteem and performance feedback on future affective preferences and cognitive expectations. *Journal of Personality and Social Psychology, 40,* 521-531.

McMurrer, J. E. (1989). *Initial intervention outcomes of the Dependable Strengths Project.* Ann Arbor, MI: University of Michigan, ERIC Clearinghouse on Counseling and Personnel Services. (ERIC Document Reproduction Service No. ED 305 574)

Mecca, A. M., Smelser, N. J., & Vasconcellos, J. (1989). *The social implications of self-esteem.* Berkeley: University of California Press.

Mischel, W., Ebbesen, E., & Zeiss, A. (1976). Determinants of selective memory about the self. *Journal of Consulting and Clinical Psychology, 44,* 92-103.

Parkman, G., & Chapman, H. (1989). Creation of a model developmental guidance curriculum to assist and encourage school districts to develop their own programs. A workshop conducted at the annual convention of the American Association for Counseling and Development, Boston, March 15-18, 1989.

Phares, E. J. (1978). Locus of control. In H. London & J. E. Exner, Jr. (Eds.), *Dimensions of personality.* New York: Wiley.

Pelham, B. W., & Swann, W. B., Jr. (1989). From self-conception to self-worth: On the source and structure of global self-esteem. *Journal of Personality and Social Psychology, 57,* 672-680.

Piers, E. V. (1984). *Piers-Harris children's self-concept scale: Revised manual, 1984.* Los Angeles, California: Western Psychological Services.

Pope, A. W., McHale, S. M., & Craighead, W. E. (1988). *Self-esteem enhancement with children and adolescents.* New York: Pergamon Press.

Rhodewalt, F. T. (1986). Self-presentation and the phenomenal self: On the stability and malleability of self-conceptions. In R. F. Baumeister (Ed.), *Public self and private life* (pp. 117-142). New York: Springer-Verlag.

Richardson, R. B., & Rayder, N. F. (1992). Three self-esteem research guides. In G. R. Walz & J. C. Bleuer (Eds.), *Student self-esteem: A vital element of school success, volume I.* Ann Arbor: Counseling and Personnel Services, Inc.

Rosenberg, M. (1965). *Society and the adolescent self-image.* Princeton, NJ: Princeton University Press.

Rosenberg, M. (1985). Self-concept and psychological well-being in adolescence. In R. L. Leahy (Ed.), *The development of the self.* London: Academic Press Inc.

Ross, M., & Conway, M. (1986). Remembering one's own past: The construction of personal histories. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: Foundations of social behavior*. New York: Guilford.

Rotter, J. B. (1966). Generalized expectations for internal versus external control of reinforcement. *Psychological Monographs: General and Applied, 80,* 1-28.

Rotter, J. B. (1975). Some problems and misconceptions related to the construct of internal versus external control of reinforcement. *Journal of Consulting and Clinical Psychology, 43,* 56-67.

Scarr, S., Weinberg, R. A., & Levine, A. (1986). *Understanding development.* New York: Harcourt Brace Jovanovich, Publishers.

Simon, W. E., & Simon, M. G. (1975). Self-esteem, intelligence and standardized academic achievement. *Psychology in the Schools, 12,* 97-99.

Suinn, R. M., & Geiger, J. (1965). Stress and the stability of self and other attitudes. *Journal of General Psychology, 73,* 177-180.

Taylor, A. (1989). Boredom as related to alienation, assertiveness, internal-external expectancy, and sleep patterns. *Journal of Clinical Psychology, 45,* 260-265.

Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103,* 193-210.

Vasta, R., & Brockner, J. (1979). Self-esteem and self-evaluation covert statements. *Journal of Consulting and Clinical Psychology, 47,* 776-777.

Wylie, R. C. (1974). *The self-concept: A review of methodological considerations and measuring instruments* (Vol 1, rev. ed.). Lincoln: University of Nebraska Press.

Wylie, R. C. (1989). *Measures of self-concept.* Lincoln: University of Nebraska Press.

Appendix A: Sample Capabilities Reports

These two capabilities reports were prepared during the intervention; information that might identify the students has been changed.

CAPABILITIES REPORT OF . . . . . High School Girl
1234 B St. NW
Sometown, WA 98XXX
Phone: 345-6789

STRENGTHS I CAN OFFER . . . . . Perseverance / persistence
Hardworking
Committed / dedicated
Work well with others

EXPERIENCES WHERE I
USED THESE STRENGTHS . . . . . Practicing sports before and after school. Played on soccer, basketball, tennis, and track teams.

Worked on many science and English group projects.

Play on two soccer teams all year to advance to higher levels.

My goals are to use soccer and academic ability to go to college, continue playing at high levels afterwards, and collegiately coach soccer.

Attending _____ High School. Good health. Interested in part-time work.

Please ask me questions about my strengths and experiences and advise me if they will help me get a job.

CAPABILITIES OF . . . . High School Boy
4567 D Ave NW
Sometown, WA 98XXX
Phone: 987-6543

STRENGTHS I CAN OFFER . . . . Good leadership and
communication skills,

Work hard, and stay on task.

Learn quickly,

Follow directions,

Personally motivated.

MY EXPERIENCES
WHERE I USED THESE STRENGTHS . Northwest Boy Scout Camp,
helped dinning and kitchen
staff prepare meals.

Seattle Times paper route for
one year.

Achieved Black Belt in ATA.

I plan to work in scientific fields when I leave college. This will be hard
and exciting because of the virtual nature of science and what it has to offer
for people. On the side I will use programming to fund my way through
college.

Attending _____ High School. Interested in finding part-time work.

Please ask me any questions about my strengths and experiences. Please
advise me if they will help me get a job.

Appendix B: Sample Items Used for Oral Strengths Presentations

These four items were prepared by students and used for their oral presentations of strengths. Identifying information has been changed.

Have you heard of _____,
I assure you that she's lots of fun.
She's responsible, friendly, and sweet.

She's a perfectionist, it's true,
And very dependable, I tell you.
She makes sure everything is nice and neat.

She's friendly, and hey,
She'll brighten your day.
With her you'll have lots of fun.

So quit your snoring,
Life's never boring,
When you know _____.   High School Girl

Surprisingly Me.

Loose and tame
Full of courage and raw strength.

Like a lion
I can be cold hearted but yet unique.

Most independent and friendly
Like a lighter, I'm the brighter
The fuel to a great sense of humor.

Surprisingly me.   High School Boy

"While sharing my good experiences in class with other classmates, I found out alot about myself. Some of the strengths that I discovered are that I am very determined when it comes to my athletic ability to do well in sports. I am a goal setter. When I set my goals I usually put them within reaching distance so I can accomplish them much easier than others. And it also makes me a better person. I am physically tough and mentally, too. Ihave alot of endurance that helps me suceed at all types of sports. I am sinceer, I like to be a good winner and a good loser. To add to that I am very modest, I don't like to brag about things, but as you can see it was required to brag to write this paper. I also have a great sense of humor. And last I am a very sensitive person, who does not like to be put down or teased about anything."

High School Boy

Lighthouse

I want my life to be a lighthouse.
"Why a lighthouse?" you say.
Think about a lighthouse.
What does it do?
It shines a light into darkness.
Its light is a guide for those in distress.
Its a reminder of danger, but at the same time,
      a comfort.
The sight of the lighthouse is a joy to a
      sailor lost at sea.
This is how I want my life to be.

High School Girl

Appendix C: Evaluation of Immediate Effect

The dependable strengths instruction was scheduled in the middle of the semester. The classes were scheduled to receive the instruction so as to facilitate an evaluation of the immediate effect of the intervention.

The Piers-Harris Children's Self-Concept Scale (PHCSCS) and the Rotter Internal-External Locus of Control Scale were completed by all classes as preintervention measurements during the 10th week of the semester.

Two of the three health classes received the dependable strengths concepts unit of instruction during the 11th and 12th weeks of the semester.

The PHCSCS and the Rotter were completed by all three classes during the 13th week of the semester as postintervention measurements for this immediate effects evaluation.

The third class was the comparison group. It then received the dependable strengths unit during the 14th and 15th weeks of the semester.

The analysis for the immediate effect of the intervention used the postintervention measurements taken during the 13th week of the semester as dependent variables for a two by two factorial analysis of variance of the PHCSCS and the Rotter scores with a covariate. In addition to determining whether there was a difference in the variables between the intervention and comparison groups, the analysis determined whether there was a difference in the dependent variables based on gender. The preintervention scores were used as the covariate to compensate for the fact that it was not possible to randomly assign students to classes (Ferguson, 1981).

The results of the analysis indicate no significant differences between the intervention and the comparison groups immediately after the intervention for any of the PHCSCS scales. The results for the PHCSCS Total Score Scale, by intervention and comparison groups, are presented in Table XI.

Table XI. Immediate Results: PHCSCS Total Score Scale,

by Group.

Group Mean Scores

Group	N	Pre	Post	Adjusted Post
Intervention	40	59.74	61.20	61.95
Comparison	22	62.37	63.09	61.73

Significance of F: p = 0.905

The immediate results for the PHCSCS Total Score Scale by student gender are in Table XII. These results are also nonsignificant.

Table XII. Immediate Results: PHCSCS Total Score Scale,

by Gender.

Gender Mean Scores

Gender	N	Pre	Post	Adjusted Post
Female	29	57.96	60.34	62.52
Male	33	63.05	63.21	61.30

Significance of F: p = 0.550

The immediate results for the Rotter Internal-External Locus of Control Scale were nonsignificant. The results are summarized in Table XIII by intervention and comparison groups, and in Table XIV by gender.

Table XIII. Immediate Results: Rotter Internal-External Locus of Control Scale, by Group.

Group Mean Scores

Group	N	Pre	Post	Adjusted Post
Intervention	40	8.25	8.90	9.43
Comparison	22	10.48	9.77	8.82

Significance of F: p = 0.488

Table XIV. Immediate Results: Rotter Internal-External Locus of Control Scale, by Gender.

Gender Mean Scores

Gender	N	Pre	Post	Adjusted Post
Female	29	8.55	8.38	8.70
Male	33	9.47	9.94	9.65

Significance of F: p = 0.237

The sample consisted of only 62 cases (40 intervention group and 22 comparison group). Of these, six (four in the intervention group and two in the comparison group) did not have usable preintervention test data; by-group by-gender mean scores were used as estimates of the preintervention scores for these subjects (Hedderson, 1987).

Biographical Note

James E. McMurrer, Jr., the eldest son of James Emmet and Helen Lucille McMurrer, was born on November 27, 1928 in Brooklyn, New York.

He graduated from Virginia Polytechnic Institute in 1951 with a Bachelor of Science degree in Mechanical Engineering and in 1952 with a Master of Science degree in Power and Fuels Engineering.

He served in the United States Army from 1952 until 1982. He graduated from the U. S. Army Command and General Staff College in 1965. His assignments included the command of Ordnance and Field Artillery units; the management of research and development activities; the management of the development of automated logistics systems; service on the Army General Staff; and the management of a major automated command and control center. These assignments took him to locations in Asia, Europe, and several regions of the United States. During his Army service, he was awarded the Legion of Merit three times for exceptional performance in positions of high responsibility.

He graduated from Boston University (overseas program) in 1981 with a Master of Education degree in Counselor Education.

He completed the program for the Doctor of Philosophy degree in Educational Psychology at the University of Washington in 1992.

While a doctoral student at the University of Washington he presented a paper at the 1989 American Counseling Association annual convention in Boston:

> McMurrer, J. E. (1989). *Initial intervention outcomes of the Dependable Strengths Project.* Ann Arbor, MI: University of Michigan, ERIC Clearinghouse on Counseling and Personnel Services. (ERIC Document Reproduction Service No. ED 305 574)