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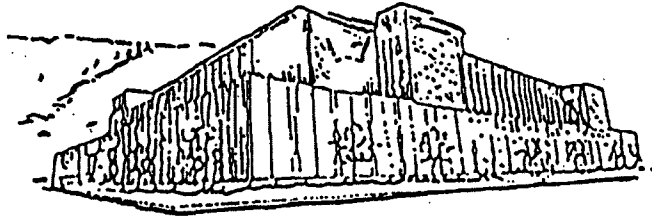
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SELF-ESTEEM, PERCEIVED PHYSICAL ACTIVITY, AND ATTITUDES  
TOWARDS PHYSICAL ACTIVITY OF FOURTH AND FIFTH GRADE STUDENTS

By

Kelly Green

B.S. Brigham Young University, 1981

Presented in partial fulfillment of the requirements

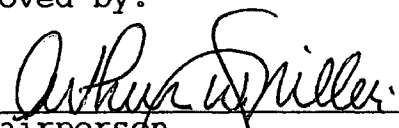
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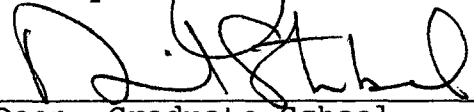
Master of Science

The University of Montana

1998

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HHP

Self-Esteem, Percieved Physical Activity, and Attitudes  
Towards Physical Activity of Fourth and Fifth Grade Students

Committee Chair: Dr. <sup>APM.</sup> Arthur Miller

The purpose of this study was to investigate relationships that may exist between self-esteem and physical activity in fourth and fifth grade children.

The subjects for this study were fourth and fifth grade students from two separate elementary schools in Missoula, Montana.

Data were collected from a total of 85 students. All students were given the following self-reporting instruments:  
1. Coopersmith Self-esteem Inventory (CSI),  
2. Children's Attitude Toward Physical Activity (CATPA), and  
3. Activity Index.

Statistical significance was found in the areas of:  
1. Self-esteem and the CATPA subdomains of social growth and tension; 2. Grade placement and the CATPA subdomains of risk, social relations, and training; 3. Perceived frequency of physical activity and the CATPA subdomains of risk, health and fitness, and training; 4. Gender and the CATPA subdomains of health and fitness, and training; 5. Perceived frequency of physical activity and gender.

Of the 89 comparisons, 14 showed statistical significance. Support for the review of related literature was limited. These results indicate that further research is warranted. Recommendations for further study include: replication with a more diverse population, replication during a different time of day, and further research into perceptions and its relationship with self-esteem.

## **Acknowledgments**

I wish to acknowledge and express sincere gratitude to my three children, Shandi, Koby, and Steven. Along with Shandi and Koby, I wish to acknowledge and thank Dr. Tucker Miller for his advise, patience and sincerity. I send a sincere thank you to Dr. Kathleen Miller, Dr. Lewis Curry, Dr. Sharon Dinkel Uhlig, Dr. Wes Shellen, Carrie Brunell, Stuart Kremzner, Joe Harlen, Cleveland McDonald, Pam Roberts, Barb Parker, Lillian Gillespie, Donovan Miller, my sweetheart Steve, and last but mostly, my parents Bea and Bryce Law.

## Table of Contents

<b>I. Introduction.....</b>	<b>1</b>
Statement of the problem.....	3
Hypothesis.....	3
Significance of the Study.....	5
Assumptions.....	6
Limitations.....	7
Delimitations.....	7
Definitions.....	8
<b>II. Survey of Related Literature.....</b>	<b>9</b>
Physical Activity.....	9
Children and Self-Esteem.....	12
Attitudes toward Physical Activity.....	20
Physical Activity and Self-Esteem.....	22
<b>III. Methods and Procedures.....</b>	<b>25</b>
Settings.....	25
Subjects.....	25
Instruments.....	26
Data Collecting Procedures.....	31
Statistical Procedures.....	32
<b>IV. Results.....</b>	<b>34</b>
Results.....	34



<b>V. Discussion</b> .....	46
Conclusion.....	58
Recommendations.....	62
<b>References</b> .....	63
<b>Appendices</b>	
A. Informed Consent.....	69
B. Coopersmith Self-Esteem Inventory.....	70
C. Physical Activity Attitudes Survey.....	71
D. Activity Index.....	79

## CHAPTER I

### Introduction

The benefits of physical activity have been extensively researched and documented (Gruber, 1986; Kirkendall, 1986; Montoye, 1986; Wells, 1986). Ausebel, Sullivan, and Ives (1980) suggested that basic positive attitudes and positive habits are developed in children during middle childhood, thus, establishing healthy, lifelong, patterns of activity. Hill (1971) concluded that physical activity has positive effects both on one's physical and psychological health and well being making it reasonable to assume that attitudes toward physical activity are no exception. One important psychological effect is the development of self-esteem. Ferguson, Yesalis, Pomrehn, and Kirkpatrick (1989) suggested that one of the benefits to participating in physical activity is an increase in self-esteem and that early development of positive attitudes toward physical activity may play an important part in an individual's desire to maintain an active lifestyle.

Folsom-Meek (1991) suggested that self-concept or self-esteem is stabilized during the stages of elementary school. Teachers and peers have their greatest impression on a child's perceived confidence at the elementary school stage. The development of high self-esteem is considered a major

characteristic for promoting healthy lifestyles (Mull, 1991). Although peer pressure plays a powerful role with respect to a child's behavior, Miller (1988), suggested that self-esteem had the greatest influence on a child's behavior.

Self-esteem is often described as a sense of self-worth. According to Gruber (1986), self-esteem is the value we place on our self-image. Self-esteem is a basic element in the development of a child's personality. Coopersmith (1967) defined self-esteem as "A personal judgment of worthiness that is expressed in the attitudes an individual holds towards himself" (p. 3). He further submitted that it is an expression of approval or disapproval which indicates the degree to which an individual believes him or herself competent, successful, significant, and worthy. Coopersmith indicated that those people displaying low self-esteem lacked respect for themselves, harbored guilty feelings, or became depressed and believed that their achievements weren't worthy of recognition (Coopersmith, 1967).

The elementary school period provides a time when positive attitudes toward physical activity can be developed and nurtured (Demarco & Sidney, 1990). Ferguson et al. (1989) found positive, significant correlations with intent to exercise and current exercise behaviors on middle school children. The promotion of positive attitudes toward physical activity may influence intent to exercise.

### Statement of the Problem

This study was conducted to investigate relationships and differences that may exist between self-esteem and physical activity in fourth and fifth grade children in Missoula, MT.

### Hypotheses

The stated hypotheses are as follows:

1. There is no significant relationship between self-perceived frequency of physical activity and measures of self-esteem in fourth and fifth grade children in Missoula, Montana.
  - 1a. There is a positive relationship between self-perceived frequency of physical activity and measures of self-esteem in fourth and fifth grade children in Missoula, Montana.
2. There is no significant relationship between attitudes toward physical activity and measures of self-esteem in fourth and fifth grade students in Missoula, Montana.
  - 2a. There is a positive relationship between attitudes toward physical activity and measures of self-esteem in fourth and fifth grade students in Missoula, Montana.

3. There is no significant difference between gender and measures of self-esteem in fourth and fifth grade children in Missoula, Montana.

3a. Fourth and fifth grade girls possess significantly higher levels of self-esteem than do fourth and fifth grade boys in Missoula, Montana.

4. There is no significant difference between grade placement and measures of self-esteem in fourth and fifth grade children in Missoula, Montana.

4a. Fifth grade children possess higher levels of self-esteem than fourth grade children in Missoula, Montana.

5. There is no significant difference between grade placement and attitudes toward physical activity in fourth and fifth grade children in Missoula, Montana.

5a. Fifth grade children possess more positive attitudes toward physical activity than fourth grade children in Missoula, Montana.

6. There is no significant difference between grade placement and self-perceived frequency of physical activity in fourth and fifth grade children in Missoula, Montana.

6a. Fifth grade children perceive themselves as more physically active than fourth grade children perceive themselves to be in Missoula, Montana.

7. There is no significant relationship between self-perceived frequency of physical activity and attitudes toward

physical activity in fourth and fifth grade children in Missoula, Montana.

7a. There is a positive relationship between self-perceived frequency of physical activity and attitudes toward physical activity in fourth and fifth grade children in Missoula, Montana.

8. There is no significant difference between gender and attitudes toward physical activity in fourth and fifth grade children in Missoula, Montana.

8a. Fourth and fifth grade girls possess more positive attitudes toward physical activity than fourth and fifth grade boys in Missoula, Montana.

9. There is no significant difference between gender and self-perceived frequency of physical activity in fourth and fifth grade children in Missoula, Montana.

9a. Fourth and fifth grade boys perceive themselves as more physically active than fourth and fifth grade girls in Missoula, Montana perceive themselves to be.

#### Significance of Study

Whether success in physical activity lends itself to improved self-esteem or whether positive self-esteem predisposes one to possess positive attitudes toward physical

activity is not known. The intent of this study was to determine whether a relationship exists among physical activity and attitudes toward physical activity and measures of self-esteem. If a relationship did exist, an argument could be made for providing, maintaining, or improving physical activity programs in elementary schools. A study of 10 through 12 year olds revealed that those possessing high self-esteem were found to be happier and more effective at meeting environmental demands than those lacking in self-esteem. Those who fell short in self-esteem possessed feelings of withdrawal and consistent feelings of distress (Coopersmith, 1967). This is an important step in investigating the interactions of physical activity and self-esteem in elementary school children. This study is different from those found in other sources in that frequency of exercise or self-perceived frequency of exercise is a variable that has not yet been investigated.

#### Assumptions

The following are basic assumptions of this study:

- 1) Self-esteem was be measured reliably.
- 2) Perceived physical activity was be measured reliably.
- 3) Attitudes were measured reliably.
- 4) Students read and understood the questions.

5) Students answered the questions honestly.

#### Limitations

The following may have an effect on the results of the study:

1. Sampling was not be random.
2. All data were self-reported.
3. Self-esteem, attitudes toward physical activity, and self-perceived frequency of physical activity were measured exclusively.

#### Delimitations

This study was delimited in that:

1. The subjects were selected from a very specific subject pool.
2. All subjects were fourth and fifth grade students from Missoula, Montana.
3. All fourth and fifth grade students were from two different public elementary schools.
4. All subjects were from the same community.



### Definitions

Attitudes: A person's feelings, biases, notions, ideas, fears and convictions about any topic (Hill, 1971).

Physical Activity: Games, sports, dance, and recreation, such as bike riding, hiking, soccer, jogging, swimming, and golf. Physical activities may or may not be done as part of organized programs, such as physical education classes, school sports, or community sports.

Self-Confidence: The belief that one can successfully execute a specific activity (Feltz, 1988).

Self-esteem: A personal judgment of worthiness that is expressed in the attitudes the individual holds toward himself (Coopersmith, 1967).

Self-concept: A person's internal perspective of him/herself (Coopersmith, 1967). A person's total appraisal of his appearance, background and origins, abilities and resources, attitudes and feelings which culminate as a directing force in behavior (LeBenne & Greene, 1969, p. 10).

## CHAPTER II

### Survey of Related Literature

#### Physical Activity

Zaichowsky, Zaichkowsky and Martinek (1975) reported that 184 grade 1-5 children who received instruction and participated in movement exploration programs for 45 minutes per week had significantly higher self-concept than 86 children who participated in the movement exploration program but received no instruction. The Cheffers and Mancini Human Movement Attitude scale and the Piers-Harris Children's Self-Concept scale were the instruments used to measure the variables of self-concept and attitudes toward human movement. Authors of the latter study also indicated that boys expressed less favorable attitudes than did girls. Lewis (1972) found that male kindergarten children who participated in a gymnastics program not only improved in self-esteem but their fear of participating in physical activity was significantly reduced.

Gruber (1986) explored the contribution of physical activity to the psychological development of children, through the use of meta-analysis. Several important findings were revealed. Gruber discovered that handicapped children

placed in physical enrichment programs, conducted by trained professionals providing individual attention resulted in the individual beginning to feel important while experiencing success in physical activity. Gruber concluded that this led to improvement in their self-concept. Normal children also experienced a slight improvement in self-esteem. Gruber once again concluded that a physical activity curriculum has a positive impact on the development of self-concept of school children. Of the four curriculum areas: 1) perceptual/motor, 2) sports skill, 3) fitness/aerobics, and 4) creative dance, number 3, physical fitness and aerobic activity, was shown to be far more effective than the other three in improving self-concept. In addition to these findings, Gruber found that participation in direct play or physical education programs or both contribute to the self-esteem in elementary school children.

A study of the effects of distance running on self-concepts of elementary students by Percy, Dziuban and Martin (1981), showed a marked increase in self-concept. Thirty subjects from the fifth and sixth grade were randomly chosen from 110 elementary school children. The Coopersmith Self-Esteem inventory was administered prior to a seven week running program. Upon completion of a seven week program both groups were retested with the same inventory. The researchers hypothesized that there would be no difference between the pre and post test means. The hypothesis was

rejected. The overall test indicated a significant difference allowing the researchers to conclude that the physical activity of distance running significantly improved self-concept.

Martinek, Cheffers and Zaichkowsky (1978) investigated race and age differences in the area of physical activity, motor development, and self-concept in children from grades one through five. The treatment group participated in a 10 week formal physical activity program, 45 minutes once per week. The curriculum consisted of perceptual motor and gymnastics activities. All subjects were given the Schilling Body Coordination test and the Martinek-Zaichkowsky Self-Concept Scale for Children before and after the 10 week period. The treatment group's self-concept scores were significantly higher than the control group's. Self-concept scores further revealed that organized physical activity programs may have a definite effect on a child's self-concept.

Calfas and Taylor (1994) conducted a study on psychological variables and physical activities in youth between the ages of 11 and 21 years. Anxiety, self-esteem, and self-concept were among the psychological constructs considered as variables in the study. Results indicated that physical activity was consistently related to improvements in self-esteem and further, that no negative effects of physical activity were reported.

Greene and Ignico (1995) conducted a study on the effects of a 10 week fitness program on fitness profiles, self-concept, and body esteem in children. The subjects in this study were 9 boys and 8 girls who failed to meet the AAPHERD Physical Best Fitness Standards in at least two of the three fitness profile components. The 17 subjects were pre and post tested using a shortened version of Harters' Self-Perception Profile for Children and the Body Esteem Scale for Children.

The 10 subjects in the treatment group participated in rigorous activity that maintained the heart rate at 60-80% of each individuals VO<sub>2</sub> max, three days per week for 60 minutes. Analysis of covariance revealed that the treatment group scored significantly higher on the post-test on two of the four self-concept dimensions than did the control group. The self-concept dimensions were athletic competence and global self-worth. Greene and Ignico (1995) suggested that the increase in global self-worth was due to the independent variable of rigorous physical activity.

#### Children and Self-esteem

Coopersmith (1967) conducted an extensive study to answer the question, "What are the conditions that lead an individual to value himself and regard himself as an object of self-worth?" This in-depth study considered the

relationships between self-esteem and various characteristics of social background, parental influences, and the child himself. The primary focus of the study was to determine conditions and experiences associated with the development of self-attitudes and to discuss conditions that improve self-esteem. The basis for this research rested in the belief that self-esteem is significantly associated with personal satisfaction and effective functioning. The subjects in the study were young Caucasian boys between 10 and 12 years old.

The study used a series of four interrelated tests consisting of: a) a selection of subjects differing in self-esteem; b) a clinical evaluation on a battery of: ability, projective and personality tests, and a clinical interview; c) a series of laboratory experiments theoretically related to self-esteem; and d) further interviews and questionnaires pertaining to antecedents to self-esteem administered to the subjects and the subjects' mothers.

Subjects differing in self-esteem were selected through the administration of a 50 item self-esteem inventory that had been specially developed for this purpose. This instrument formed the basis of what was to become the Coopersmith Self-Esteem Inventory. It is concerned with a subject's self attitudes in the four areas of peer, parent, school, and personal interest.

Coopersmith found that individuals respected themselves and considered themselves worthy when possessing high self-

esteem. Further results revealed that those possessing low self-esteem fell short in self respect and reported feelings of guilt, shame, or depression, and believed that their achievements weren't very important.

Gibbs and Norwich (1985) conducted a study on the validity of the Lee Short Form of the Coopersmith Self-Esteem Inventory (SEI) on 41 students between the ages of 13 and 15. They found a correlation coefficient of  $r = .53$  ( $p < .01$ ) suggesting concurrent validity between the short form SEI and grid measures of self-esteem. The grid measure was composed of students ranking themselves in relation to seven friends on a scale of eight positive constructs. This study was not the most effective measure of concurrent validity due to the sample of questions on the Lee inventory representing Coopersmith's SEI.

Coopersmith (1967) stated that there is every reason to believe that people with high, medium, and low self-esteem live in markedly different worlds. That is to say that styles of responding to one's self, to others and to impersonal objects would reveal differences in perspective as well as interpretation of a situation. Individuals differing in levels of self-esteem experience the same or similar events differently, and they have different expectations and affective reactions. He suggested that those low in self-esteem exhibit higher levels of anxiety, but are otherwise lower in the affect expressed, and are likely to exhibit

psychosomatic symptoms and feelings of depression more frequently. Those descriptions are most immediately relevant to pre-adolescents in our culture. These conclusions were drawn after subjects participated in a study that required them to participate in several experimental situations and interviews in addition to various inventories and projective tests. Those instruments established differences in individual responses. They serve to reveal different ways of approaching, perceiving and responding to environmental situations. Perceptions that students have of themselves influence their ability to achieve in a variety of school related areas. Felson and Blumberg (1973) suggested that these perceptions may affect attitudes toward school and the ability to get along with peers.

Research by Conner (1994) on peer pressure and peer relations revealed that individuals high in self-esteem and self-confidence resist negative peer pressure and that possession of high self-esteem may also be important in the formation and maintenance of friendships and entry into peer groups. The researcher suggested that social, behavioral, and scholastic problems may be associated with a failure to develop peer relationships. He further suggested that the need for social acceptance is as strong as any biological desire. Conner stated that pressure to "belong" may sway an individual to join undesirable activities or undesirable groups.



Eccles, Bauman and Rotenberg (1989) compared 54 gifted children with 681 average children from grades 2-8 on constructs of self-esteem and peer acceptance. Gifted children displayed higher levels of self-esteem when the questions were academically oriented and were chosen more often to be study companions than average students. However, gifted students were just as likely to be chosen as teammates on sports teams. This study concluded that peer acceptance and self-esteem are diversified constructs and vary according to the criteria by which the individual is judged.

Everyone does not agree with the conclusions of past research. Beane (1991) stated that self-esteem is widely misunderstood and that the correlation between self-esteem and achievement is relatively weak when considering global self-esteem. The correlations become stronger when self-esteem is situation specific, for example; self-esteem in reading, self-esteem in math, self-esteem in music, self-esteem in physical education. Beane suggested that self-esteem is the result of a balance of interactions between the environment and the individual, furthermore, that the environment is almost inevitably more powerful. The assumption that self-esteem is necessary for school achievement is a source of great debate for Beane. He supported his beliefs by reviewing an international comparison test in mathematics. The tests were given to Americans, South Koreans, and Japanese students. The

American students outscored the Asian students in measures of self-esteem but scored lower in mathematics.

Beane believed that there is little room for the idea for enhancing self-esteem beyond its relation to individual achievement. He claimed that people often fail to differentiate between self-esteem and self-concept stating that self-concept is the description of self while self-esteem is the evaluation of self. He suggested that self-esteem alone is an incomplete definition of the concept of human dignity. Beane stated that "It's not enough that young people like themselves. They must also have a sense that what they say, think, and do count for something. In other words, self-esteem must be accompanied by a sense of personal efficacy...personal efficacy must be connected to collective efficacy so that individuals see themselves as a part of a group that can and do have meaning and power." (p. 29). Schmoker (1990), a critic of self-esteem, stated that self-esteem, as it is now used, isn't something earned, but given. Beane (1991) on the other hand, believed that self-esteem is neither earned nor given but that self-esteem is learned.

Bothered by the idea that many educators make the assumptions that heightened self-esteem means heightened achievement, Black (1991), conducted a study of 8,200 K-12 students in a school district in Elmira, NY. Along with Black's study, she researched and abstracted over 100 publications on self-esteem from the grade school to the

university level. Some of the general points from Black's research follow:

1. Most self-esteem research was conducted by psychologists and behaviorists who studied personality and the self during the 1970s.

2. More than 20 terms are used to approximate the meaning of self-esteem (such as self-worth, self-image, self-awareness). The imprecise terminology contributes to confusion, misunderstanding, and misapplication of findings.

3. Self-perceptions is an umbrella term for a person's general sense of self; it includes self-concept and self-esteem. Self-concept is the way individuals describe themselves based on roles they play and attributes they believe they possess. Self-esteem is the level of satisfaction individuals attach to their descriptions of themselves.

4. Parents and others in the home and family have the most influence on a child's self-esteem.

5. Schools have the power to enhance or hinder students' self-esteem through policies and practices, curriculum and instruction, institutional climate, and teacher personality and attitudes. The factors in schools that most affect student self-esteem include climate, grouping, decision-making systems, and systems of reward and punishment.

6. Research has identified behaviors and attributes of students with positive and negative self-esteem. Research also has identified behaviors and attributes of teachers who enhance or hinder students' self-esteem.

7. Self-esteem is usually higher among elementary school children and generally becomes more negative as students progress through the grades.

8. Research clearly shows that schools can have some influence on a child's self-esteem. But it also shows that self-esteem, whether high or low, is a rather fixed and stable psychological state, not too amenable to change. Generally, children's self-esteem is formed by age four or five and derived largely from the student's home and family; schools have less impact.

Black concluded that schools have limited impact on raising a student's self-esteem. She further concluded that research consistently shows that self-esteem is an outcome rather than a cause of success or achievement and that what past studies really show is that students gain self-esteem by putting forth effort to achieve.

Leo (1990) stated that correlations between self-esteem and its' consequences are as close to zero as one can get in the social sciences. Leo (1998) agrees with Albert Bandura, a psychology professor from Stanford University known for his work in self-efficacy, who quoted "self-esteem affects neither personal goals nor performance". Leo found no study

has ever demonstrated a connection between feeling good about oneself and improved performance.

### Attitudes Toward Physical Activity

In his article "The Teacher and Students Attitudes Toward Physical Activity", Aicinena (1991) presented a summary of research conducted upon students' attitudes toward physical activity. His thorough review of existing literature led Aicinena to conclude that the following items affect students attitudes toward physical activity:

- crowded conditions
- large class sizes
- comparison to others
- grading on lack of skill
- public embarrassment
- allowed to work with friends
- allowed to work with those of similar skill
- pace of instruction
- repetition and shallow instruction
- unequal amounts of personal attention
- allowance of student input
- teaching methods
- role modeling by teachers, e.g. instructor in shape
- amount and quality of personal interaction

Methodology and classroom factors may have an effect on children's attitudes toward physical activity.

Birtwistle and Brodie (1991) conducted research on 291 secondary school students and 316 primary school students in the area of health promotion. This study indicated that significant differences in attitude toward physical activity exist between boys and girls in both primary and secondary settings. Results showed that girls had significantly more positive attitudes toward physical activity than boys but that no differences were found between a student's attitudes and their socio-economic status.

Ewy (1993) conducted a study to investigate children's attitudes towards physical activity and self-esteem. Fifty-two students in grades 4 and 5 completed the Children's Attitudes Towards Physical Activity Inventory (CATPA), the Coopersmith Self-Esteem Inventory (CSEI), and the Physical Best Fitness Test. Thirty 3rd grade children completed the Grade Three CATPA, the CSEI, and the Physical Best Fitness Test. Results of the study showed that girls reported a more positive attitude on the CATPA Aesthetic sub-domain than did boys. No associations were found between physical fitness and attitudes towards physical activity and likewise for grade placement and attitudes toward physical activity. Fourth and fifth graders reported higher self-peer scores than did third graders on the CSEI. Fourth graders reported higher home parent scores on the CSEI than third and fifth graders.

Watkins (1992) asked the question " What are the youth beliefs about health and physical activity?" In search of an answer he examined the extent which 229 children from the 3rd, 6th, 9th, and 12th grades believed that frequent physical activity resulted in various physical and psychological outcomes. Most subjects believed that frequent activity results in beneficial physical outcomes. Younger subjects were more likely to believe that muscular development was the main result of physical activity rather than other physiological or psychological outcomes. Older subjects were more likely than younger subjects to believe that internal physiological outcomes were benefits of physical activity. Drinking, smoking, and other abusive behaviors were judged to be more harmful to abilities than were sedentary behaviors like not exercising at all.

Review of related literature indicated that little research has been done with respect to associations in attitudes toward physical activity and self-esteem. The role that gender and maturation may play in attitudes toward physical activity and self-esteem is also inconclusive at this time.

#### Physical Activity and Self-Esteem

Plante and Rodin (1990) examined literature available since 1981 on exercise and psychological health. Their focus

was on the enhancement of psychological well-being on non-clinical populations. Four areas were reviewed:

1) psychological well-being and mood, 2) personality and self-concept, 3) psychological stress and responsivity, and 4) cognition. After a thorough review of literature Plante and Rodin suggested that exercise improves mood and psychological well being and enhances self-concept and self-esteem. McDonald and Thompson (1992) found that exercising for health reasons was associated positively with self-esteem for both men and women.

Alpert, Field, Goldstein, and Perry (1990) investigated the effects of aerobic physical activity on 24 three to five year olds. The 12 children in the experimental group participated in a daily aerobic exercise program for eight weeks. The 12 subjects in the control group engaged in free play on the playground. All subjects were given pre and post tests on sub-maximal exercise test on a pediatric bicycle, an agility test, a health knowledge test, and a self-esteem scale. Although both groups were comparable on all pre-tests, the aerobic exercise group showed significant decreases in heart rate as well as increases in agility and self-esteem following the exercise program.

Increased self-esteem is only one benefit of physical activity according to Carlson (1990). He suggested that physical exercise has a positive influence on the social, emotional, and cognitive aspects of an individual's



development and thus results in better health, decreased anxiety and depression, and increased confidence as well as self-esteem.

Biddle (1993) outlined a number of issues associated with the psychological outcomes of physical activity and exercise in children. Although he believed the research was limited, he focused on areas of self-esteem, exercise enjoyment, eating disorders, sport stress, and strategies for enhancing self-esteem in children through exercise sport and personal improvement. Biddle's review of existing literature led him to conclude that quality experiences in sport can have beneficial emotional effects in terms of reduced negative affect and an increase in self-esteem. He also suggested that strategies for improvement in a child's self-esteem should include exercise and sport improvements in a child's personal fitness.

## CHAPTER III

### Methods and Procedures

#### Setting

The study was conducted at two separate elementary schools in Missoula, Montana. Missoula is located in the heart of the southwest corner of the Montana Rockies. Both schools are located within a quarter mile radius of The University of Montana campus. The students attending these schools live in the community surrounding the schools. Volunteers from four different classes at each grade level came from each school.

#### Subjects

Data were collected from a total subject sample of 85 students from grades four and five. This consisted of 37 fourth graders, 19 girls and 18 boys; and 48 fifth graders, 26 girls and 22 boys. All fourth and fifth grade students were administered the Coopersmith Self-Esteem Inventory, the Children's Attitudes Toward Physical Activity, and the Activity Index.

## Instruments

Three instruments were used in this study: 1) Coopersmith Self-Esteem Inventory (CSEI) 2) Children's' Attitude Toward Physical Activity (CATPA) and 3) Activity Index (AI).

### Coopersmith Self-Esteem Inventory

The school form of the Coopersmith Self-Esteem Inventory (CSEI) (Appendix B) was used to assess self-esteem. This is the form used with students between the ages of eight and 15. It is composed of 58 statements. Fifty items relate specifically to self-esteem and eight items relate to the Lie Scale. The Lie scale is a measure of a student's defensiveness or test wiseness. The self-esteem items yield a total possible score of 100. Scores are obtained by scoring one point for every response that matches the key and multiplying that number by two to arrive at a total score. If desired, separate scores may be obtained for the four subscales. These four subscales include: General Self, Social Self-Peers, Home-Parents, and School-Academic. These subscales allow for variances in perceptions of self-esteem in different areas of experience.

Students read each statement and are asked to decide if that statement is like them or is not like them. The students' response is written in pencil directly onto the survey.

Validity data based on several studies is contained in the CSEI manual. Kokenes (1974, 1978) reported on the construct validity of Coopersmith Self-Esteem Inventory. She included 7,600 school children from grades 4 through 8. Her investigation was designed to observe the comparative importance of the home, peers, and school to global self-esteem of pre-adolescents and adolescents. Kokenes' study confirmed the construct validity of the four subscales of the CSEI as measuring sources of self-esteem.

A similar study by Kimball (1973) on 7,600 school children from grades 4 through 8 compiled norms by grade and sex. The sample included students of various socio-economic ranges purported to be representative of the general population of the United States. Construct validity was supported by this study.

Simon and Simon (1975) correlated the CSEI with the SRA Achievement Series scores of 87 children in grade 4 and obtained a coefficient of .33. The same CSEI scores were also correlated with their scores on the Lorge-Thorndyke Intelligence Test resulting in a coefficient of .30. The authors suggested that concurrent validity may be reasonably supported by this data.

Several factor analyses support the multidimensionality of the CSEI. Kokenes (1978) performed factor analysis on 7,600 school children. Results showed 4 pairs of bi-polar factors emerging where each pair seemed to be highly congruent with the subscales of the CSEI. Ketcham and Morse (1965) conducted factor analysis on the CSEI with 484 students from grades 3, 5, 7, 9 and 11. The analysis revealed five factors: Social Self-Esteem, Total Self-Esteem, Doing Well in School, Self-Deprecation, and Self-Certainty thus also supporting the multidimensionality of the CSEI.

Coopersmith (1981) cited many studies in support of the reliability of the CSEI. Spatz and Johnston (1973) administered the CSEI to over 600 students in grades 5, 9, and 12 in a rural school district. They obtained coefficients of .81 for fifth grade, .86 for ninth grade, and .80 for 12th grade. These coefficients indicate adequate internal consistency for students in all three grades and thus, support reliability. Kimball (1973) obtained coefficients ranging from .87 to .92 in his study of 7,600 public school children from grades 4 through 8. These results support internal consistency of the CSEI.

Test form reliability was supported by Battle (1977). A Canadian form of the CSEI was constructed to approximate the CSEI. The two tests are considered as alternate forms. A study of 198 school children from grades 3 through 6, correlations ranged from .71 to .80.

### Children's Attitudes Toward Physical Activity

The Children's Attitudes Toward Physical Activity (CATPA, Appendix C) originally developed by Kenyon (1968b) and adapted later by Simon and Smoll (1974) then further revised by Schutz, Smoll, Carr, Mosher, (1985) was another instrument employed. This survey is for use with elementary school students from grades 4 through 6. It is an inventory with seven subdomains. Its purpose is to gather data and to assess attitudes toward participation in physical activity. Each of the seven subdomains has five standard categories. These categories contain five bipolar adjective pairs on a semantic differential scale. Each sub-category is rated on a five point scale.

The Children's Attitudes Toward Physical Activity inventory has undergone several revisions to improve its psychometric properties. The original Attitudes Toward Physical Activity (ATPA) inventory was developed from a multidimensional conceptual model of physical activity (Kenyon, 1968a) which was empirically supported through factor analysis (Kenyon, 1968a, 1968b; Zaichkowsky, 1978). Subsequent research with the original CATPA inventory and its revisions has upheld the basic factor structure (Schutz et al., 1981a). This lends partial support to the construct validity of the inventory. Research with both CATPA and ATPA inventories has provided evidence for construct validity. Differences between sport groups (e.g., Alderman, 1970; Reid

& Hay, 1979; Schutz, Smoll & Wood, 1981a), between sex and age groups (Kenyon, 1968c; Mullins, 1969; Simon & Simon, 1975) between athletes and non-athletes (Corbin, 1976; Eastgate, 1975; Hajjar & Gruber, 1975; Hendry & Douglas, 1975), and between delinquents and non-delinquents (Straub & Felock, 1974) all provide supportive evidence of construct validity.

Several studies support the claim of convergent validity. Smoll, Schutz and Keeney (1976) found moderate relationships between CATPA and children's involvement in physical activities. Meyers, Pedergast, and DeBacy (1978) found a significant correlation coefficient ( $r=.43$ ) between the CATPA Health and Fitness subdomain scores and VO<sub>2</sub> max in adolescent girls. Carre, Mosher, and Schutz (1980) reported a number of small but significant correlations coefficients ( $r=.30$ ) between CATPA and knowledge of physical activity with 7th and 11th grade males.

### Activity Index

The Activity Index (AI) (Appendix D) developed by Page, Frey, Talbert, and Falk (1992) and revised by Miller and Green (1995) was employed in this study. It is a seven statement survey measuring self-perceived activity levels of elementary school age children.

C=Sometimes true, D= Hardly ever true, and E= Not true at all. Scoring is based upon a five point Likert scale where; A is associated with five points on down to E, which is associated with 1 point.

Copies of this instrument were sent out to four experts in the field of physical education. They were asked to answer three questions about the Activity Index. They were asked if they believed that the instrument's design would measure physical activity, if it was adequate for grade school children, and if the five point scale was sensitive enough to indicate levels of physical activity. Their responses were recorded and a revised criterion validated instrument was used in the study. (Appendix D)

#### Data Collecting Procedures

Prior to the study, permission was requested and obtained from the school district superintendent and from the principal of each school. Informed consent forms were sent home with each child and returned signed by a parent or guardian. All procedures of this study were approved by The University of Montana Institutional Review Board (Appendix A). Times to administer the surveys were set up with the principal, the classroom teachers, and the lunch hour supervisors prior to the subjects' participation in the study.



In order to maintain students' confidentiality, all surveys were coded prior to distribution. Coding consisted of letter and number combinations to identify school, class, grade, and gender. For example: Alexander, James from Lewis and Clark school, Mrs. Jones' 4th grade class was coded as follows- 1LC4J, where 1 corresponds to the first name alphabetically on the class list, LC for school name, 4 for grade and J for class.

Standardized instructions (Appendix D) were read to the students prior to the distribution of the instrument. Instructions included directions for answering questions and encouragement for students to ask questions to clarify survey questions. Students were encouraged to take as much time as possible to answer the questions, and not rush through the survey. Copies of the instruments, along with pencils, were passed out and then collected by the researcher after the subjects had finished. Each survey took approximately 10 to 20 minutes to complete.

### Statistical Procedures

The purpose of this study was to investigate relationships and differences that may exist between self-esteem, attitudes toward physical activity, and self-perceived frequency of physical activity. Given this premise, the statistics used were Pearson correlations and

t-tests for independent sample means. Statistical procedures were performed on an IBM compatible computer using the SPSS program. The independent variables were gender, grade placement. The dependent variables were attitudes toward physical activity, self-perceived physical activity levels, and mean scores from the school form of the Coopersmith Self-Esteem Inventory.

## Chapter IV

### RESULTS

1. Null hypothesis number one stated that there would be no significant relationship between self-perceived frequency of physical activity and measures of self-esteem in fourth and fifth grade children. A Pearson  $r$  correlation was conducted on the variables of self-esteem and perceived frequency of physical activity. Nonsignificant correlations were revealed. Variables, number of cases, and  $r$  and  $p$ -values for self-esteem and perceived frequency of physical activity are presented in Table 1.

Table 1

Correlations between Perceived Frequency  
of Physical Activity and Self-Esteem

Variable	n	$r$	p
4th & 5th grade	85	-.04	.72
4th grade	38	-.18	.28
5th grade	47	.18	.22
male	41	-.23	.14
female	44	.26	.10

2. Null hypothesis number two stated that there would be no significant relationship between attitudes toward physical activity and measures of self-esteem in fourth and fifth grade children. A Pearson  $r$  correlation was also conducted on the variables of self-esteem and attitudes toward physical activity. The seven attitudes toward physical activity subscales, the  $r$  and  $p$ -values for self-esteem and attitudes toward physical activity, and the number of cases for all subjects, for grades 4 and 5 separately and for males and females separately are cited in Table 2.

Five of the 35  $p$ -values were statistically significant at the .05 level; Results from Table 2 indicate the following:

a. that the variable of attitudes toward physical activities subdomain of tension, and the variable of self-esteem was statistically significant at the  $r = .27$ ,  $p = .01$ , for all subjects.

b. that the variable of attitudes toward physical activities subdomains of tension and social growth, and the variable of self-esteem among fifth grade students was statistically significant at  $r = .38$ ,  $p = .01$  and  $r = .33$ ,  $p = .02$ , respectively.

Table 2  
Correlations Between Self-Esteem and  
Attitudes Toward Physical Activity

Subscale	1	2	3	4	5	6	7
Fourth and Fifth Grade (n=85)							
$\underline{r}$	-.05	.08	.07	.14	.16	.27	.00
$p$	.65	.46	.54	.19	.14	.01**	.98
Fourth Grade (n=38)							
$\underline{r}$	-.08	.04	.16	.00	.12	.27	.08
$p$	.62	.81	.34	.99	.49	.10	.62
Fifth Grade (n=47)							
$\underline{r}$	.03	.20	.13	.24	.33	.38	-.23
$p$	.85	.18	.40	.10	.02*	.01**	.12
Male (n=41)							
$\underline{r}$	-.08	.08	.17	-.04	.11	.36	.04
$p$	.64	.64	.29	.79	.49	.02*	.83
Female (44)							
$\underline{r}$	.17	.18	.15	.19	.45	.14	-.09
$p$	.28	.24	.33	.22	.00**	.38	.58

Note. 1=health and fitness, 2=human movement, 3=social relations, 4=risk, 5=social growth, 6=tension, 7=training

\* Denotes significant at the  $p \leq .05$  level

\*\* Denotes significant at the  $p \leq .01$  level

c. that the variable of attitudes toward physical activities subdomain of tension and the variable of self-esteem among fourth and fifth grade males was statistically significant at  $r = .36, p = .02$ .

d. that the variable of attitudes toward physical activities subdomain of social growth and the variable of self-esteem was statistically significant for fourth and fifth grade females at  $r = .45, p = .001$ .

3. Null hypothesis number three stated that there would be no significant difference between gender and measures of self-esteem in fourth and fifth grade children. A  $t$ -test for independent samples was conducted on the dependent variable of self-esteem and the independent variable of gender.

Results for self-esteem and gender are shown in Table 3.

4. Null hypothesis number four stated that there would be no significant difference between grade placement and measures of self-esteem in fourth and fifth grade children. A  $t$ -test for independent samples was conducted on the dependent variable of self-esteem and the independent variable of grade placement. Results for self-esteem and grade placement are presented in Table 4.

**Table 3**Differences in Self-Esteem and Gender

Variable	Male		Female		<u>t</u>	df	p
	M	SD	M	SD			
Self-Esteem	(n=41) 76.48	18.51	(n=44) 79.00	15.73	.68	83	.50

**Table 4**Differences in Self-Esteem and Grade Placement

Variable	Fourth Grade		Fifth Grade		<u>t</u>	df	p
	M	SD	M	SD			
Esteem	(n=38) 74.06	20.49	(n=47) 80.81	16.62	-.16	83	.87

5. Null hypothesis number five stated that there would be significant difference between grade placement and attitudes towards physical activity in fourth and fifth grade children. Seven t-tests for independent samples were conducted on the dependent variable of attitudes toward physical activity and the independent variable of grade placement. Three of the

dependent variable of attitudes toward physical activity and the independent variable of grade placement. Three of the seven  $t$ -tests revealed significant differences. There was statistical significance between the attitude of willing to take part in physical activity that may involve risk and grade placement at  $t= 2.02$ ,  $p= .05$ . Statistical significance was also shown between grade placement and social relations, and grade placement and desire to participate in physical activity that may require training at  $t= 2.07$ ,  $p= .04$  and  $t= 4.32$ ,  $p= .00$ , respectively. Results are represented in Table 5.

6. Null hypothesis number six stated that there would be no significant difference between grade placement and frequency of physical activity in fourth and fifth grade children. Another  $t$ -test for independent means was conducted on the independent variable of grade placement and the dependent variable of perceived frequency of physical activity. No significance was found between these variables at  $t= .44$ ,  $p= .63$ . Statistics for grade placement and perceived frequency of physical activity are presented in Table 6.



**Table 5**Differences in Attitudes Toward Physical Activity and  
Grade Placement

Subscale	Fourth Grade		Fifth Grade		t	df	2-tail p
	M	SD	M	SD			
Health & Fitness	(n=38) 22.50	2.94	(n=47) 23.38	2.54	1.04	83	.15
Human Movement	16.40	5.79	17.85	7.10	1.04	83	.30
Risk	17.68	4.97	20.00	5.56	2.02	83	.05*
Social Relation	22.37	3.42	23.66	1.94	2.07	83	.04*
Social Growth	21.37	3.66	22.21	3.35	1.10	83	.28
Tension	19.29	5.27	20.66	5.12	1.21	83	.23
Training	18.58	4.66	22.45	3.30	4.32	83	.00**

\* Denotes significant to the  $p \leq .05$  level

\*\* Denotes significant to the  $p \leq .01$  level

**Table 6**Differences in Grade Placement and Perceived Frequency of Physical Activity

Variable	Fourth Grade		Fifth Grade		<u>t</u>	df	Sig p
	M	SD	M	SD			
Perceived Frequency of Physical Activity	(n=38) 28.26	3.22	(n=47) 28.62	4.24	.44	83	.63

7. Null hypothesis number seven stated that there would be no significant relationship between self-perceived frequency of physical activity and attitudes toward physical activity in fourth and fifth grade children. Seven Pearson  $r$  correlations were conducted on the variables of perceived frequency of physical activity and attitudes toward physical activity. Of the seven tests, only one revealed statistical significance. Among all the 85 subjects, significance was shown between the variables of perceived frequency of physical activity and risk at  $r = .22$ ,  $p = .04$ . When statistics are broken down by gender and grade, statistical significance was shown between the dependent variable of

statistics are broken down by gender and grade, statistical significance was shown between the dependent variable of gender and the independent variables of health and fitness, risk, and training and the dependent variable of perceived frequency of physical activity among males. Scores recorded were  $r = .39$ ,  $p = .01$  for health and fitness,  $r = .39$ ,  $p = .01$  for risk, and  $r = .38$ ,  $p = .01$  for training.

8. Null hypothesis number eight stated that there would be no significant difference between gender and attitudes toward physical activity in fourth and fifth grade children. Seven t-tests for independent samples were conducted on the independent variable of gender and the dependent variable of attitudes toward physical activity. Of the seven tests, two were found to be statistically significant; the variables of health/fitness and gender, at  $t = -2.27$ ,  $p = .03$  and the variables of risk and gender at  $t = 5.19$ ,  $p = .00$ . Results are shown in Table 8.

9. Null hypothesis number nine stated that there would be no significant difference between gender and self-perceived frequency of physical activity in fourth and fifth grade children. A t-test for independent samples was conducted on the independent variable of gender and the dependent variable of self-perceived frequency of physical activity. Results indicate a significance of  $t = 3.43$ ,  $p < .001$  level.

**Table 7**Correlations between Perceived Frequency of Physical Activity and Attitudes Toward Physical ActivityFourth and Fifth Grade

Subscale	1	2	3	4	5	6	7
Fourth and Fifth Grade (n=85)							
<u>r</u>	.18	.12	.22	.18	.11	.14	.18
<u>p</u>	.10	.27	.04*	.10	.31	.19	.10
Fourth Grade (n=38)							
<u>r</u>	.25	.25	.16	.15	.32	.00	.16
<u>p</u>	.13	.14	.34	.38	.05	.98	.32
Fifth Grade (n=47)							
<u>r</u>	.13	.06	.23	.26	-.03	.23	.21
<u>p</u>	-.37	.71	.12	.08	-.84	.13	.17
Male (n=41)							
<u>r</u>	.39	.23	.26	.39	.30	.21	.38
<u>p</u>	.01 *	.15	.10	.01*	.06	-.19	.01**
Female (n=44)							
<u>r</u>	.21	.18	.18	-.09	.09	.04	.09
<u>p</u>	.17	.26	.24	.58	.54	.82	.57

Note. 1=health and fitness, 2=human movement, 3=social relations, 4=risk, 5=social growth, 6=tension, 7=training

\* Denotes significant at the  $p \leq .05$  level

\*\* Denotes significant at the  $p \leq .01$  level

**Table 8**

Differences in Gender and Attitudes Toward Physical Activity

Variable	Male		Female		<u>t</u>	df	Sig
	M	SD	M	SD			
Health & Fitness	(n=41) 22.29	3.34	(n=44) 23.64	1.86	-2.31	83	.02*
Human Movement	16.02	7.05	18.30	5.92	-1.61	83	.11
Risk	21.68	3.44	16.43	5.69	5.11	83	.00**
Social Relations	22.93	2.72	23.23	2.80	-0.50	83	.62
Social Growth	21.15	3.87	22.48	3.06	-1.78	83	.08
Tension	20.68	4.97	19.45	5.39	1.09	83	.28
Training	20.41	4.51	21.00	4.31	-0.61	83	.54

\* Denotes significant at the  $p \leq .05$  level

\*\* Denotes significant at the  $p \leq .01$  level

**Table 9**Differences in Gender and Perceived Frequency of Physical Activity

Variable	Male		Female		t	df	p
	M	SD	M	SD			
Frequency of Physical Activity	(n=41)		(n=44)				
	29.83	3.23	27.18	3.87	3.43	83	.001***

\*\*\* Denotes significant at the  $p \leq .001$  level

## CHAPTER V

### Discussion

Three null hypotheses were tested using Pearson correlations and six hypotheses were tested using  $t$ -tests for independent means on an IBM compatible computer with the SPSS statistical program. A total of 89 comparisons were made. Of the 89 comparisons, 14 showed statistical significance.

Null hypothesis number one stated that there would be no significant relationship between self-perceived frequency of physical activity and measures of self-esteem in fourth and fifth grade children. Information pertaining to this hypothesis is contained in Table 1.

The correlation was not statistically significant at the  $p \leq .05$  level. Therefore, the null hypothesis was rejected. The work of Zaichowsky et al. (1975), Lewis (1972), Percy et al. (1981), and Gruber (1986) who found that children who participated in movement exploration, gymnastics, and other physical enrichment programs experience higher levels of self-esteem and/or improved self-concept is not clearly supported by this research. There may be several explanations for the difference in results. First, improvements in self-esteem should not be mistaken for high

levels of self-esteem. For example, if a pre-test score for self-esteem was 2 on a scale of 1-20 and the post-test score was 5, there has been an improvement in the self-esteem score but not a high self-esteem score. Second, previous research involved designs where experimental and control groups were utilized and children were selected to be more physically active than their counterparts. Rather, this investigation used self reports of how active children think they are and compared that with their self reported levels of esteem. No variables were manipulated in this investigation. Third, after the review of literature, it was expected that those individuals who perceived themselves as more physically active would possess higher levels of self-esteem and since this was not the case, there must be another or other variables that may effect self-esteem levels in fourth and fifth grade children. For instance, a child may have a very supporting and loving home environment or maybe a child is very successful academically or musically and finds acceptance and fulfillment in these areas.

This study indicated that self-esteem in fourth and fifth grade students was unaffected by whether fourth and fifth graders believe they are physically active. Perhaps physical activity may not be a priority nor one of the most important factors in a fourth or fifth grade child's life. Possibly, children at this age level experience other areas of success and do not judge themselves worthy or not worthy



by whether they are physically active. Perhaps children at this age do not aspire to be physically active, therefore, their self-esteem is not related to physical activity. Eccles, Bauman, and Rotenberg (1989) concluded that peer pressure and self-esteem vary according to the criteria by which an individual is judged. Perhaps fourth and fifth grade children don't believe they are being judged on whether they are physically active or whether they are not physically active, hence, no bearing on their self-esteem.

Null hypothesis number two stated that there would be no significant relationship between attitudes toward physical activity and measures of self-esteem. Information pertaining to this hypothesis is contained in Table 2.

The subdomain of tension (taking part in physical activity to reduce stress or to get away from problems) among the variable of attitude toward physical activity and the variable of self-esteem among fourth and fifth grade children resulted in  $r = .27$ ,  $p = .01$  as shown in Table 2. The other six subdomains of the variable of attitudes toward physical activity showed no significant relationships.

When one looks at the breakdown of attitudes toward physical activity and self-esteem according to grade and gender, statistical significance is found. Among fifth grade students, the same variables resulted in  $r = .38$ ,  $p = .01$ , and among fourth and fifth grade males  $r = .36$ ,

$p = .02$ . The subdomain of social growth among attitudes toward physical activity and the variable of self-esteem has statistical significance among fifth grade students at  $r = .33$ ,  $p = .02$  and among fourth and fifth grade females at the  $r = .45$ ,  $p = .00$ . These five comparisons showed statistical significance at  $p \leq .05$ .

The correlation between social growth and self-esteem supports some of the review of literature. Coopersmith's definition of self-esteem, "a personal judgment of worthiness expressed in the attitudes an individual holds toward him or herself or an expression of approval or disapproval which indicates the degree to which an individual believes him or herself competent, successful, significant, worthy" (Coopersmith 1981, p. 5), was supported by this correlation. The idea that self-esteem and social growth are related is not new. Conner's (1994) research on peer pressure and self-esteem suggested that the need for social acceptance was as strong as any biological desire. Conner further stated that self-esteem was important in the formation and maintenance of friendships into peer groups. Results from this correlation also are supportive of a relationship existing between self-esteem and social growth.

Finding a significant correlation between tension and self-esteem was supportive of some of the literature review. Aicinena's (1991) thorough review of literature suggested

that stressful classroom situations affect one's attitudes toward physical activity. However, Watkins' (1992) research indicated that children were more likely to believe that the benefits to physical activity were more physical than psychological. However, results of the present study indicate that children at this age may very well be aware of the psychological benefits of physical activity.

Biddle's (1993) research led to the conclusion that a strategy for enhancing a child's self-esteem may be done through sport, exercise, and personal improvement and yet no significant correlation was found between health and fitness and self-esteem. Why low correlations were found among self-esteem and the other subdomains of attitudes toward physical activity is unclear. Perhaps training and human movement are constructs that are misunderstood, are foreign terms, or not experienced by fourth and fifth grade students. Perhaps Beane (1991), Black (1991), and Leo (1998) are correct in their beliefs that "self-esteem is an outcome rather than a cause of success or achievement" (p.29).

Null hypothesis number three stated that there would be no significant difference between gender and measures of self-esteem in fourth and fifth grade children. Information pertaining to this hypothesis is contained in Table 3.

Results indicated that there is no significant difference between gender and measures of self-esteem in

fourth and fifth grade children. Therefore, the null hypothesis for this comparison was accepted at the .05 level.

Review of literature suggested differences in attitudes toward physical activity between gender, but not in measures of self-esteem between gender at this age level. Birtwistle and Brodie (1991) indicated that significant differences did indeed exist between both males and females in attitudes toward physical activity in both primary and secondary settings. Ewy (1993) also revealed differences in attitudes toward physical activity between gender at the 3rd, 4th, and 5th grade levels but did not show differences in measures of self-esteem within gender at this age level. Finding no differences between measures of self-esteem supports the idea that children at this age do not judge themselves worthy or unworthy based on the fact that they may be a boy or a girl. This indicates that self-esteem at this age may be dependent on things other than gender.

Null hypothesis number four stated there would be no significant difference in grade placement and measures of self-esteem in fourth and fifth grade children. Information pertaining to this hypothesis is contained in Table 4.

Results indicated that there was no significant difference in measures of self-esteem in fourth and fifth grade children, therefore, the null hypothesis for this comparison was accepted at the .05 level.

Review of literature revealed no differences in measures of self-esteem at the fourth and fifth grade levels. Ewy (1993) concluded that fourth and fifth grade students reported higher self-esteem scores than did third grade students but no differences were evident between fourth and fifth grade students. Results of this study are in agreement with the Ewy study. This finding may suggest that self-esteem may remain constant in youth for a few years. Maybe by the time children reach fourth grade they have made a judgment about themselves that remains through fifth grade and possibly even longer. Fifth graders may not feel any more or less worthy than they did as fourth graders. Black (1991) suggests that children's self-esteem is formed by the ages of four or five years old and that it is most influenced by parents and family. Black's suggestion would explain why no differences were found.

Null hypothesis number five stated there would be no significant difference between grade placement and attitudes toward physical activity in fourth and fifth grade children. Results from Table 5 show statistical significance in three of the seven cases.

Results indicate that fourth and fifth graders demonstrate a significant difference to: participate in physical activity that may involve some risk, participate in physical activity that may require training, and participate in physical activity that may promote social relations. Three

of the seven subdomains of attitudes toward physical activity revealed differences between grade placements, thus supporting a conclusion that some attitudes toward physical activity do indeed differ between grades. This is a different finding than that of Ewy (1993), whose study of third, fourth, and fifth grade children indicated no associations in grade placement and attitudes toward physical activity. The differences revealed in this study may be explained by suggesting that fifth grade students may have more experience or a better understanding of the attitude constructs than fourth grade students.

Null hypothesis number six stated there would be no significant difference between grade placement and self-perceived frequency of physical activity. Results from Table 6 indicate that there was no statistical significance in self-perceived frequency of physical activity and grade placement. This information indicated that fourth and fifth graders perceptions of their own activity levels revealed no difference between the two grades. Therefore, the null hypothesis must be accepted at the .05 level. Since this study was the first to incorporate self-perceived physical activity levels, no comparisons to past research and related literature can be made. According to the present study, fifth grade students believe they are no more or no less physically active than fourth grade students and fourth grade

students believe they are no more or no less physically active than fifth grade students.

Null hypothesis number seven stated there would be no significant relationship between perceived frequency of physical activity and attitudes toward physical activity. Results from Table 7 present statistical significance in one of the 7 cases.

The subdomain of social relations among the variable of attitudes toward physical activity revealed a significant relationship. The remaining six subdomains of attitudes toward physical activity reveal no significant relationships.

When data is further subdivided according to grade and gender statistics show that the more physically active fourth and fifth grade males think they are, the more likely it is that they will possess positive attitudes related to risk, training, and health and fitness. While Birtwistle and Brodie (1991) revealed that females possessed more positive attitudes toward physical activity than did males and Ewy (1993) showed that females had more positive attitudes in the aesthetic subdomain than did males, neither study involved self-perceptions of physical activity levels. These results did not support past studies. The most obvious difference between this study and others, other than sampling, was the use of self-reported perceptions of frequency of physical activity. This study used data with respect to how active the students perceive themselves to be rather than fitness scores

from controlled settings and yet some differences were still found. Coopersmith (1967) suggested that perceptions that children have of themselves influences their ability to achieve in a variety of school related areas while Felson and Blumberg (1973) suggested that perceptions may affect attitudes toward school and the ability to get along with peers. Results from this study along with findings from past studies may support the notion that perceptions individuals have of themselves may influence their attitudes in a variety of areas. Coopersmith (1967) also stated that self-esteem is a set of attitudes or beliefs that a person brings with him or herself when facing the world. If perceptions are beliefs and self-esteem is a set of attitudes, perhaps profiles of self-esteem and perceptions may be predictors of future success.

Null hypothesis number eight stated that there would be no significant difference between gender and attitudes toward physical activity in fourth and fifth grade children. Results of the seven t-tests are presented in Table 8. Results from Table 8 revealed statistical significance in two of the seven cases. The variables of health and fitness and gender showed a significant difference at  $t = -2.27$ ,  $p = .03$ . The variables of risk and gender showed a significance of  $p = .001$  with  $t = 5.19$ . Ewy (1993) found that females had more positive attitudes toward physical activity than did males, and this



study revealed significance in two of the subdomains of attitudes toward physical activity. The alternative hypothesis stated that girls would have more positive attitudes toward physical activity than boys. Raw data show the mean self-reported score for girls attitudes in the area of human movement was indeed higher than the boys self-reported mean score. However, the self-reported mean score for boys in the attitude subdomain of risk was much higher than their female counterparts. Interpretation of data suggests that there are gender differences in specific attitudes toward physical activity in fourth and fifth grade children.

The interpretations of the results suggest that males are more likely to have positive attitudes toward participating in physical activity that may involve risk than are their female counterparts. Interpretation further suggests that females have more positive attitudes toward participation in physical activities that may have health and fitness benefits than do males. The review of literature indicated that females possess more positive attitudes toward physical activity than do males. Birtwistle and Brodie (1991) suggested that girls had significantly more positive attitudes toward physical activity than did boys. Ewy (1993) showed that females had more positive attitudes toward the aesthetic subdomain than did males. This study reveals mixed

support for the review of literature depending on the subdomain.

Differences in attitudes toward physical activity and gender may be affected by the type of activity rather than by physical activity in general. For example, girls and boys at this age may have similar attitudes toward swimming or kickball and yet have very different attitudes toward activities like football or step aerobics. Football may carry an element of prestige for young men and therefore the sport or this type of activity and the prestige attached may be associated with the attitude.

Null hypothesis number nine stated there would be no significant difference between gender and self-perceived frequency of physical activity in fourth and fifth grade children. Statistical significance between gender and perceived frequency of physical activity was shown at the  $p=.001$  level with  $t= 3.43$ . Therefore, the null hypothesis was rejected.

The alternative hypothesis which stated that fourth and fifth grade boys will perceive themselves as more active than fourth and fifth grade girls is accepted. Fourth and fifth grade males may indeed perceive themselves as more physically active than fourth and fifth grade females, therefore the corresponding higher self-reported scores. Maybe these perceptions are correct. But, maybe boys and girls differ on their interpretation or their perceptions of the terms used

in the Activity Index, for example, the use of the term "sports". Question number 1 of the Activity Index refers to the term sports. Does "sports" mean different things to different people? Perhaps girls perceive sports as being organized league type of activity, whereas, boys may perceive "sports" as all types of athletic activity, organized and unorganized. The point is that there are differences in perceptions, but where do they stem from? There is no known existing literature on perceived physical activity levels of children, therefore, comparisons with past studies and research cannot be made.

### Conclusions

The purpose of this research was to investigate any relationships and differences that may exist between self-esteem and self-perceived frequency of physical activity in fourth and fifth grade children. The independent variables investigated were gender and grade placement. The dependent variables were scores on the CATPA, the school form of the CSEI, and self-reported scores on perceived frequency of physical activity instrument.

The sample consisted of 85 fourth and fifth grade children. Three null hypotheses were tested using Pearson correlation and six null hypotheses were tested using t-tests

for independent means. Of the 89 total comparisons, 14 showed statistical significance.

Five of the 14 statistically significant results in this study involve the variable of self-perceived physical activity. However, no relationships were found between self-perceptions of physical activity and self-esteem. The lack of evidence to support the theory that a relationship exists between participating in physical activity and self-esteem is slightly disturbing and unexpected. Nevertheless, the results may be quite revealing in that past studies in physical activity and self-esteem contained data from studies that involved experimental groups, control groups, and pre and post test means. The children participating in the experiment and receiving instruction may have felt special or may have received feedback of some nature. The possibility may have existed that the children received more interaction with an instructor, the test conductor, and/or their classmates. Is it possible that interaction with an instructor and/or classmates and reinforcement from an instructor are what contributed to the improvements in self-esteem and not the actual physical activity? Could it be that the a child has a sense of accomplishment after completing a bout of training and fitness testing? Aicinena concluded that allowing children to work with their friends, the pace of instruction, amounts and quality of personal

attention, and methodology are all factors that may effect a child's attitudes toward physical activity.

This present study supported a relationship existing between attitudes toward physical activity and self-esteem but did not find a significant relationship between self-esteem and perceptions of physical activity. Was the lack of a significant relationship because the physical activity was not structured nor controlled? Or was the absence of a significant relationship between self-esteem and self-perceptions of physical activity in this present study due to lack of structure and personal interaction? According to Black (1991), gains in self-esteem come from putting forth effort to achieve. Perhaps children do not think riding a bike or rollerblading or playing ball are accomplishments. If this were the case, then, according to Black (1991), no significant correlations between perceptions of physical activity and self-esteem would surface.

This present study revealed a significant relationship between self-perceived physical activity and some attitudes toward physical activity. Past studies concluded that a significant relationship exists between physical activity and attitudes toward physical activity. This author concluded that the results of this study strengthen the conclusions of past studies because another aspect of physical activity, self-perceptions of physical activity, further revealed that

a significant relationship does indeed exist between physical activity and certain attitudes toward physical activity.

Little research has been done exploring differences or relationships between self-esteem and attitudes toward physical activity. This author concluded that positive relationships exist between self-esteem and certain attitudes toward physical activity. This significance may be of importance when considering how to structure an activities program or physical education unit for children. Emphasis in health education today is to promote healthy lifestyles and wellness. Positive self-esteem has been associated with success and achievement. However, according to Leo (1998), no study has ever demonstrated a connection between feeling good about oneself and improved performance. Some people may feel terrible about themselves and still perform well on a math test, whereas, others may feel wonderful about themselves and never perform well on a math test. This leads this author to conclude that self-esteem is situation specific.

Teachers and physical educators may be in a position to promote positive attitudes toward physical activity and to encourage students at all age levels to participate. The encouragement and promotion seem to be only the beginning of the process in promoting more positive attitudes toward physical activity. From there, physical educators and teachers, but mostly parents, need to continually support and

encourage a child to participate in whatever healthy activity they choose to explore. This author contends that the association, encouragement, and feedback from an instructor, parent, or friend effects attitudes toward physical activity, and that self-esteem is situation specific.

### Recommendations

The results of this study may support the following recommendations:

1. this study should be replicated with a more diverse population;
2. this study should be replicated with the administration of the instruments during class time. Perhaps lunch time was not the best time to administer the instruments but it was the only time set aside by the schools' administration for the data to be collected;
3. the preliminary nature of this study with respect to the use of self-perceived frequency of physical activity scores may indicate that further research into self-perceptions and its relationship with self-esteem and attitudes may be a worthwhile endeavor;
4. and that further studies in situation specific self-esteem be done.

## References

- Aicinena, S. (1991). The teacher and student attitudes toward physical education. The Physical Educator, 48(1), 28-32.
- Alderman, R. B. (1970). A sociopsychological assessment of attitude toward physical activity in champion athletes. Research Quarterly, 41, 1-9.
- Alpert, B., Field, T. M., Goldstein, S., & Perry, S. (1990). Aerobics enhances cardiovascular fitness and agility in pre-schoolers. Health Psychology, 9(1), 48-56.
- Ausebel, D. P., Sullivan, E. V., & Ives, S. W. (1980). Theory and problems of child development, New York: Grune and Stratton, Inc.
- Battle, J. (1977). Comparison of two self-esteem inventories. Psychological Reports, 41, 159-160.
- Black, S. (1991). Self-esteem sense and nonsense, The American School Board Journal, 178, 27-29.
- Beane, J. A. (1991). Sorting out the self-esteem controversy. Educational Leadership, 49, 25-30.
- Biddle, S. J. (1993). Children exercise and mental health. International Journal of Sport Psychology, 24(2), 200-216.
- Birtwistle, G. E. & Brodie, D. A. (1991). Children's attitudes towards physical activity and perceptions of physical education. Health Education Research, 6(4), 465-478.
- Carlson, J. (1990). Counseling through physical fitness and exercise. Elementary School Guidance and Counseling, 24(4), 298-302.
- Calfas, K. J. & Taylor, W. C. (1994). Effects of physical activity on psychological variables in adolescents. Pediatric-exercise-science, 6(4), 406-423.
- Carre, F. A., Mosher, R. E., & Schutz, R. W. (1980). British Columbia physical education assessment: General Report. Victoria: British Columbia Ministry of Education.



Connor, M. J. (1994). Peer relations and peer pressure. Educational Psychology in Practice, 9(4), 207-215.

Coopersmith, S. (1981). Self-Esteem Inventories. Palo Alto, CA, Consulting Psychologists Press.

Coopersmith, S. (1967). The Antecedents of Self-Esteem. San Francisco: W.H. Freeman and Company, 3-10.

Corbin, C. B. (1976). Attitudes toward physical activity of champion women basketball players. International Journal of Sport Psychology, 1, 14-21.

DeMarco, T. & Sidney, K. (1990). Enhancing children's participation in activity. Education Digest, 55(6), 58-61.

Eastgate, C. A. (1975). Attitudinal differences between female participants in a middle school extramural meet. Unpublished master's thesis, University of Wisconsin, Madison.

Eccles, A. L., Bauman, E., & Rotenberg, K. J. (1989). Peer acceptance and self esteem in gifted children. Journal of Social Behavior and Personality, 4(4), 401-409.

Ewy, S. R. (1993). Attitudes towards physical activity and self-esteem (Master's thesis, Fort Hayes State University). Educational Doctoral Research Service ED362813.

Felson, M. & Blumberg, A. (1973). Student membership relations in the classroom group. Paper presented at the American Educational Research Association, New Orleans, LA.

Feltz, D. L. (1988). Self-confidence and sports performance. Exercise and Sport Science Reviews, 16, 423-457.

Ferguson, K. J., Yesalis, C. E., Pomrehn, P. R., & Kirkpatrick, M. B. (1989). Attitudes, knowledge, and beliefs as predictors of exercise intent and behavior in school children. Journal of School Health, 59(3), 112-115.

Folsom-Meek, S. L. (1991). Relationships among attributes, physical fitness, and self-concept development elementary school children. Perceptual and Motor Skills, 73, 379-383.

Gibbs, J. & Norwich, B. (1985). The validity of a short form of the Coopersmith self-esteem inventory. British Journal of Educational Psychology, 55, 76-80.

Greene, J. C. & Ignico, A. A. (1995). The effect of a ten-week physical fitness program on fitness profiles, self-concept and body esteem in children. Journal of the International Council for Health, Physical Education, Recreation and Dance, 42-47.

Gruber, J. J. (1986). Physical activity and self-esteem development in children: A meta-analysis. American Academy of Physical Education Papers, 19, 30-48.

Hajjar, L. & Gruber, J. J. (1975). Attitudes of women athletes in different sports attending public and parochial schools. American Corrective Therapy Journal, 33, 9-15.

Hendry, L. B. & Douglas, L. (1975). University students: Attainment and sport. British Journal of Educational Psychology, 45, 299-306.

Hill, C. A. (1971). Factors related to the attitudes of 9th grade boys in Arkansas, toward physical education. Unpublished doctoral dissertation, University of Arkansas.

Kenyon, G. S. (1968a). A conceptual model for characterizing physical activity. Research Quarterly, 39, 96-104.

Kenyon, G. S. (1968b). Size scales for assessing attitudes toward physical activity. Research Quarterly, 39, 566-574.

Kenyon G. S. (1968c). Values held for physical activity by selected urban and secondary school students in Canada, Australia, England and the United States. Washington, DC: United States Office of Education.

Ketcham, W. & Morse, W. C. (1965). Dimensions of children's social and psychological development related to school achievement. Cooperative Project No. 1286, Office of Education, Department of Health, Education and Welfare. Ann Arbor, MI: University of Michigan.

Kimball, O. M. (1973). Development of norms for the Coopersmith Self-Esteem Inventory: Grades four through eight. (Doctoral dissertation, Northern Illinois University.) Dissertation Abstracts International, 34:1131-1132.

Kirkendall, D. R. (1986). Effects of physical activity on intellectual development and academic performance. American Academy of Physical Education Papers, 19, 49-63.

Kokenes, B. A. (1974). Grade level differences in factors of self-esteem. Developmental Psychology, 10, 954-958.

Kokenes, B. A. (1978). A factor analytic study of the Coopersmith Self-Esteem Inventory. Adolescence, 13: 149-155.

LaBenne, W. D. & Greene, B. I., (1969). Educational implications of self-concept theory. Pacific Palisades, CA, Goodyear Publishing Co., 10.

Leo, J. (1990). The trouble with self-esteem. U. S. World News Report, Apr, 16.

Leo, J. (1998). Damn, I'm good. U. S. World News Report, May, 21.

Lewis, G. B. (1972). An exploratory study of the relationships of apparatus movement skills with selected physical and psychological characteristics of kindergarten-aged males. Unpublished doctoral dissertation, University of Michigan, Ann Arbor.

Martinek, T. J., Cheffers, J. T., & Zaichkowsky, L. D. (1978). Physical activity, motor development and self-concept: race and age differences. Perceptual and Motor Skills, 46, 147-154.

Matthews, D. B. & Odom, B. L. (1989). Anxiety: a component of self-esteem. Elementary School Guidance and Counseling, 24, 153-157.

McDonald, K. & Thompson, J. K. (1992). Eating disturbance, body image dissatisfaction, and reasons for exercising: Gender differences and correlational findings. International Journal of Eating Disorders, 11, (3), 289-292.

Meyers, C. L., Pendergast, D. R., & DeBacy, D. L. (1978). Interrelationships involving selected physical fitness variables and attitude toward physical activity in elementary school children. In F. Landry and Orban (Eds.), Sports medicine: Electrocardiography and hypertension and other aspects of exercise. (pp.305-312). Miami, FL: Symposia Specialists.

Miller, A. & Green, K. D., (1995). Activity Index, University of Montana.

Miller, R. J. (1988). Positive Self-Esteem and Alcohol/Drug related attitudes among school children. Journal of Alcohol and Drug Education, 33(4), 26-31.

Montoye, H. J. (1986). Physical activity, physical fitness, and heart disease risk factors in children. In G.A.Stull and H.M. Eckert(Eds.), The Effects of Physical Activity on Children, Human Kinetics, Champaign IL., 127-152.

Mull, S. S. (1991). The role of the health educator in development of self-esteem. Journal of Health Education, 22(6), 349-351.

Mullins, M. (1969). Attitudes toward multidimensional physical activity as a function of race, sex, and socioeconomic level. Dissertation Abstracts International, 30, 4814-A. (University Microfilms No.70-8567).

Page, R. M., Frey, J., Talbert, R., & Falk, C. (1992). Children's feelings of loneliness and social dissatisfaction: relationship to measures of physical fitness and activity. Journal of Teaching in Physical Education, 11, 211-219.

Percy, L. E., Dziuban, C. B., & Martin, J. B. (1981). Analysis of effects of distance running on self-concepts of elementary students. Perceptual and Motor Skills, 52, 42.

Plante, T. G., & Rodin, J. (1990). Physical fitness and enhanced psychological health. Current Psychology Research and Reviews, 9(1), 3-24.

Reid, R. M., & Hay, D. (1979). Some behavioral characteristics of rugby and association footballers. International Journal of Sport Psychology, 10, 239-251.

Schmoker, M. (1990). Self-esteem is earned, not learned. Newsletter of the Thomas Jefferson Center, Jan-Feb, p. 1 ff.

Schutz, R. W., & Smoll, F. L. (1977). Equivalence of two inventories for assessing attitudes toward physical activity. Psychological Reports, 40, 1031-1034.

Schutz, R. W., Smoll, F. L., & Wood, T. M. (1981a). Physical activity and sport: attitudes and perceptions of young Canadian athletes. Canadian Journal of Applied Sport Sciences, 6, 32-39.

Schutz, R. W., Smoll, F. L., & Wood, T. M. (1981b). A psychometric analysis of an inventory for assessing childrens attitudes toward physical activity. Journal of Sport Psychology, 4, 321- 344.

Schutz, R. W., Smoll, F. L., Carr, F. A., & Mosher, R. E. (1985). Inventories and norms for children's attitudes toward physical activity. Research Quarterly, 56, 256-265.

Simon, J. A. & Smoll, F. L. (1974). An instrument for assessing children's attitudes toward physical activity. Research Quarterly, 45, 407-415.

Simon, W. E. & Simon, M. G. (1975). Self-esteem, intelligence and standardized academic achievement. Psychology in the Schools, 32, 97-100.

Smoll, F. L. & Schutz, R. W., (1980). Children's attitudes toward physical activity; a longitudinal analysis. Journal of Sport Psychology, 2, 144-154.

Smoll, F. L., Schutz, R. W., & Keeney, J. K. (1976). Relationships among children's attitudes, involvement, and proficiency in physical activities. Research Quarterly, 47, 797-803.

Spatz, K. & Johnston, (1973). Internal Consistency of the Coopersmith Self-Esteem Inventory. Educational and Psychological Measurements, 33, 875-876.

Straub, W. F. & Felock, T. (1974). Attitudes toward physical activity of delinquent and non-delinquent junior high school age girls. Research Quarterly, 45, 21-27.

Watkins, B. (1992). Youth beliefs about health and physical activity. Special issue: Does environment really contribute to healthy quality of life? Journal of Applied Developmental Psychology, 13(2), 257-269.

Wells, C. L. (1986) The effects of physical activity on cardiorespiratory fitness in children. American Academy of Physical Education Papers, 19, 14-126.

Zaichkowsky, L. B. (1978). The factorial validity of Kenyon's attitudes toward physical activities inventory. Canadian Journal of Applied Sport Sciences, 3, 144-146.

Zaichkowsky, L. B., Zaichkowsky, L. D. & Martinek, T. (1975). Canadian symposium, 7th, Psycho-motor Learning and Sport Psychology, Quebec City.

Zeichner, K. M. (1978). Group membership in the elementary school classroom. Journal of Educational Psychology, 70(4), 555-564.

## Appendix A

## INFORMED CONSENT STATEMENT

Your child will be asked to fill out three short questionnaires during a Health Enhancement class period. The first one is a one page Physical Activity Index. The purpose of the activity index is to gather information on the frequency of participation in physical activity. There will be 7 categories and your child will be asked to circle a letter for the estimated frequency one participates in physical activity. The categories for example state, "I take part in physical activities that give me a chance to meet new people," and "I take part in exciting physical activities that could be dangerous because you move very fast and must change direction quickly?" The second questionnaire is a one page questionnaire titled the Coopersmith Self-Esteem Inventory. The purpose of this 58 question Inventory is to gather information dealing with self-esteem. Such statements as "I'm never shy", "I often wish I were someone else", "I get upset easily at home", "I'm doing the best work I can", "I'm popular with kids my own age", etc. are presented and the child is asked to check a block stating that the statement is either like me or unlike me. It is an either/or response. The third questionnaire is a Physical Activity Attitudes survey. The purpose of this index is to gather information on your child's attitude toward physical activity. Each child will answer seven questions which deal with his/her attitude toward participation in physical activity. The total time for the three questionnaires is approximately 50 minutes. The three questionnaires are on file with your child's classroom teacher and you may view them at any time before or after the study.

Your child's participation in this study is solicited, but it is voluntary. The questionnaire protocol is strictly confidential and individual responses will not be identified. At no time will individual names be asked or written on the responses. The results will not be identified individually, but rather in group form by gender, age, and grade, and school. Your child also will be asked to write her/his fall physical fitness test scores on the activity sheet. Again no name identification will occur with this information. It will also be grouped.

The Department of Health and Human Performance at The University of Montana supports the practice of protection for research subjects. The following information is provided so that you and your child can decide whether or not she/he wishes to participate in the present study. The study deals with the interactions among four variables. They are a child's self-esteem, her/his attitude toward participation in physical activity, the type of physical activities your child participates in, and her/his physical fitness level. Your child should be aware that even if she/he agrees to participate, she/he is free to withdraw at any time without any question.

Although there is no foreseeable risk to your child, the following paragraph is required by the University of Montana: *In the event that your child is injured as a result of this research he/she should individually seek appropriate medical treatment. If the injury is caused by negligence of the University or any of its employees, you may be entitled to reimbursement or compensation pursuant to the Comprehensive State Insurance Plan established by the Department of Administration under the authority of M.C.A., Title 2, Chapter 9. In the event of a claim for such injury, further information may be obtained from the University's Claims Representative or University Legal Counsel.*

If your child is interested in participating in this study, please print your child's name and sign your name on the spaces provided below. Your child must sign the form as well. All forms must be returned by 4 December 1995. No children can participate unless written approval is returned from home.

Sincerely,



Arthur "Tucker" Miller, PhD  
Principal Investigator  
Health & Human Performance Dept.  
University of Montana  
243-5238

Kelly Green  
Investigator  
112 McGill Hall  
University of Montana  
243-5238

Child's name (please print) \_\_\_\_\_

Child's signature \_\_\_\_\_

Parent's signature \_\_\_\_\_

- | Like Me                  | Unlike Me                |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Things usually don't bother me.                              |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. I find it very hard to talk in front of the class.           |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. There are lots of things about myself I'd change if I could. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. I can make up my mind without too much trouble.              |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. I'm a lot of fun to be with.                                 |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. I get upset easily at home.                                  |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. It takes me a long time to get used to anything new.         |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. I'm popular with kids my own age.                            |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. My parents usually consider my feelings.                     |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. I give in very easily.                                      |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. My parents expect too much of me.                           |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. It's pretty tough to be me.                                 |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. Things are all mixed up in my life.                         |
| <input type="checkbox"/> | <input type="checkbox"/> | 14. Kids usually follow my ideas.                               |
| <input type="checkbox"/> | <input type="checkbox"/> | 15. I have a low opinion of myself.                             |
| <input type="checkbox"/> | <input type="checkbox"/> | 16. There are many times when I'd like to leave home.           |
| <input type="checkbox"/> | <input type="checkbox"/> | 17. I often feel upset in school.                               |
| <input type="checkbox"/> | <input type="checkbox"/> | 18. I'm not as nice looking as most people.                     |
| <input type="checkbox"/> | <input type="checkbox"/> | 19. If I have something to say, I usually say it.               |
| <input type="checkbox"/> | <input type="checkbox"/> | 20. My parents understand me.                                   |
| <input type="checkbox"/> | <input type="checkbox"/> | 21. Most people are better liked than I am.                     |
| <input type="checkbox"/> | <input type="checkbox"/> | 22. I usually feel as if my parents are pushing me.             |
| <input type="checkbox"/> | <input type="checkbox"/> | 23. I often get discouraged at school.                          |
| <input type="checkbox"/> | <input type="checkbox"/> | 24. I often wish I were someone else.                           |
| <input type="checkbox"/> | <input type="checkbox"/> | 25. I can't be depended on.                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | 26. I never worry about anything.                               |
| <input type="checkbox"/> | <input type="checkbox"/> | 27. I'm pretty sure of myself.                                  |
| <input type="checkbox"/> | <input type="checkbox"/> | 28. I'm easy to like.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 29. My parents and I have a lot of fun together.                |

- | Like Me                  | Unlike Me                |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 30. I spend a lot of time daydreaming.                   |
| <input type="checkbox"/> | <input type="checkbox"/> | 31. I wish I were younger.                               |
| <input type="checkbox"/> | <input type="checkbox"/> | 32. I always do the right thing.                         |
| <input type="checkbox"/> | <input type="checkbox"/> | 33. I'm proud of my school work.                         |
| <input type="checkbox"/> | <input type="checkbox"/> | 34. Someone always has to tell me what to do.            |
| <input type="checkbox"/> | <input type="checkbox"/> | 35. I'm often sorry for the things I do.                 |
| <input type="checkbox"/> | <input type="checkbox"/> | 36. I'm never happy.                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | 37. I'm doing the best work that I can.                  |
| <input type="checkbox"/> | <input type="checkbox"/> | 38. I can usually take care of myself.                   |
| <input type="checkbox"/> | <input type="checkbox"/> | 39. I'm pretty happy.                                    |
| <input type="checkbox"/> | <input type="checkbox"/> | 40. I would rather play with children younger than I am. |
| <input type="checkbox"/> | <input type="checkbox"/> | 41. I like everyone I know.                              |
| <input type="checkbox"/> | <input type="checkbox"/> | 42. I like to be called on in class.                     |
| <input type="checkbox"/> | <input type="checkbox"/> | 43. I understand myself.                                 |
| <input type="checkbox"/> | <input type="checkbox"/> | 44. No one pays much attention to me at home.            |
| <input type="checkbox"/> | <input type="checkbox"/> | 45. I never get scolded.                                 |
| <input type="checkbox"/> | <input type="checkbox"/> | 46. I'm not doing as well in school as I'd like to.      |
| <input type="checkbox"/> | <input type="checkbox"/> | 47. I can make up my mind and stick to it.               |
| <input type="checkbox"/> | <input type="checkbox"/> | 48. I really don't like being a <sup>boy</sup> girl.     |
| <input type="checkbox"/> | <input type="checkbox"/> | 49. I don't like to be with other people.                |
| <input type="checkbox"/> | <input type="checkbox"/> | 50. I'm never shy.                                       |
| <input type="checkbox"/> | <input type="checkbox"/> | 51. I often feel ashamed of myself.                      |
| <input type="checkbox"/> | <input type="checkbox"/> | 52. Kids pick on me very often.                          |
| <input type="checkbox"/> | <input type="checkbox"/> | 53. I always tell the truth.                             |
| <input type="checkbox"/> | <input type="checkbox"/> | 54. My teachers make me feel I'm not good enough.        |
| <input type="checkbox"/> | <input type="checkbox"/> | 55. I don't care what happens to me.                     |
| <input type="checkbox"/> | <input type="checkbox"/> | 56. I'm a failure.                                       |
| <input type="checkbox"/> | <input type="checkbox"/> | 57. I get upset easily when I'm scolded.                 |
| <input type="checkbox"/> | <input type="checkbox"/> | 58. I always know what to say to people.                 |

Short

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Gen	Soc	H	Sch	Total	L
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> x2 =	<input type="checkbox"/>

Boy \_\_\_\_\_ Girl \_\_\_\_\_

Birthdate \_\_\_\_\_  
                  Month           Day           Year

#### PHYSICAL ACTIVITY ATTITUDES

This questionnaire is designed to find out how you feel about taking part in physical activity. Physical activities are games, sports, and dance such as bike riding, hiking, soccer, swimming, jogging, gymnastics, and square dancing. These physical activities may or may not be done as part of organized programs, such as physical education classes, school sports, or community sports.

At the top of each page in the booklet there is a box, and in the box there is an idea. Below the box are five different pairs of words. Please put an X along the scale between the word pairs to show how you feel about the idea. This is not a test. There are no right or wrong answers. If you do not understand the idea in the box, put an X in the I DO NOT UNDERSTAND box at the top of the page.

Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" about the items, that we want. On the other hand, please do not be careless because we want your true impressions.



-2-

How do you feel about the idea in the box?

PHYSICAL ACTIVITY FOR SOCIAL GROWTH

Taking part in physical activities which give you  
a chance to meet new people.

Always Think About the Idea in the Box

If you do not understand this idea,  
mark this box  and go to next page.

1.           good   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   bad
2.           of no use   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   useful
3.           not pleasant   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   pleasant
4.           nice   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   awful
5.           happy   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   sad

-3-

How do you feel about the idea in the box?

PHYSICAL ACTIVITY FOR HEALTH AND FITNESS

Taking part in physical activities to make your health better and to get your body in better condition.

Always Think About the Idea in the Box

If you do not understand this idea,  
mark this box  and go to next page.

1.           good \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ bad
2.           of no use \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ useful
3.       not pleasant \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ pleasant
4.           nice \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ awful
5.           happy \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ sad

-4-

How do you feel about the idea in the box?

PHYSICAL ACTIVITY AS A THRILL BUT INVOLVING SOME RISK

Taking part in exciting physical activities that could be dangerous because you move very fast and must change direction quickly.

Always Think About the Idea in the Box

If you do not understand this idea,  
mark this box  and go to next page.

1.           good   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   bad
2.           of no use   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   useful
3.           not pleasant   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   pleasant
4.           nice   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   awful
5.           happy   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   sad

-5-

How do you feel about the idea in the box?

PHYSICAL ACTIVITY TO CONTINUE SOCIAL RELATIONS

Taking part in physical activities which give you  
a chance to be with your friends.

Always Think About the Idea in the Box

If you do not understand this idea,  
mark this box  and go to next page.

1.           good   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   bad
2.           of no use   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   useful
3.       not pleasant   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   pleasant
4.           nice   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   awful
5.           happy   \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_   sad

-6-

How do you feel about the idea in the box?

PHYSICAL ACTIVITY AS THE BEAUTY IN HUMAN MOVEMENT

Taking part in physical activities which have beautiful and graceful movements.

Always Think About the Idea in the Box

If you do not understand this idea,  
mark this box  and go to next page.

1.            good    \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_    bad
2.            of no use    \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_    useful
3.            not pleasant    \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_    pleasant
4.            nice    \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_    awful
5.            happy    \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_    sad

-7-

How do you feel about the idea in the box?

PHYSICAL ACTIVITY FOR THE RELEASE OF TENSION

Taking part in physical activities to reduce stress  
or to get away from problems you might have.

Always Think About the Idea in the Box

If you do not understand this idea,  
mark this box  and go to next page.

1.           good \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ bad
2.           of no use \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ useful
3.           not pleasant \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ pleasant
4.           nice \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ awful
5.           happy \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ sad

-8-

How do you feel about the idea in the box?

PHYSICAL ACTIVITY AS LONG AND HARD TRAINING

Taking part in physical activities that have long and hard practices. To spend time in practice you need to give up other things you like to do.

Always Think About the Idea in the Box

If you do not understand this idea,  
mark this box  and go to next page.

1.           good \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ bad
2.           of no use \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ useful
3.           not pleasant \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ pleasant
4.           nice \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ awful
5.           happy \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_ sad

## Appendix D

**ACTIVITY INDEX**

Circle the letter that best represents how you feel about the following statements:

**A = Always True**

**B = True Most of the Time**

**C = Sometimes True**

**D = Hardly Ever True**

**E = Not True at All**

- |    |                             |   |   |   |   |   |
|----|-----------------------------|---|---|---|---|---|
| 1. | I play sports.              | A | B | C | D | E |
| 2. | I ride a bike.              | A | B | C | D | E |
| 3. | I skateboard or rollerblade | A | B | C | D | E |
| 4. | I play ball.                | A | B | C | D | E |
| 5. | I run.                      | A | B | C | D | E |
| 6. | I play outside.             | A | B | C | D | E |
| 7. | I like to do active things. | A | B | C | D | E |