WALDEN UNIVERSITY
A higher degree. A higher purpose.

Walden University
ScholarWorks

Walden Dissertations and Doctoral Studies

Walden Dissertations and Doctoral Studies Collection

1-1-2009

Understanding middle school students' perspectives regarding physical activity and fitness

Susan Yesalonia
Walden University

Follow this and additional works at: https://scholarworks.waldenu.edu/dissertations

 Part of the Elementary and Middle and Secondary Education Administration Commons, Other Education Commons, Public Health Education and Promotion Commons, and the Secondary Education and Teaching Commons

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

COLLEGE OF EDUCATION

This is to certify that the doctoral study by

Susan Yesalonia

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Christina Dawson, Committee Chairperson, Education Faculty
Dr. Kathleen Lynch, Committee Member, Education Faculty

Chief Academic Officer

Denise DeZolt, Ph.D.

Walden University

2009

ABSTRACT

Understanding Middle School Students' Perspectives Regarding Physical Activity and Fitness

by

Susan Yesalonia
M.S., Ohio University, 1981
B.S., State University of New York at Cortland, 1979

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education Program

Walden University
April 2009

ABSTRACT

Research confirms inactivity increases in adolescence and that unfit youth are at risk of acquiring cardiovascular diseases, diabetes, obesity, or other significant physical disorders later in life. Thus, the purpose of this phenomenological study was to describe the experience of chronically inactive children who were exposed to an exercise intervention program. The specific focus of the research was to better understand the essential educational needs of the participants and the effective elements of the program, *Moving for Fun* (MFF), a 7-week after-school fitness intervention program designed to modify chronic inactivity. Open-ended interviews and 3 observations were conducted with 8 middle school students (4 males and 4 females) identified as scoring low on a standardized assessment protocol of health-related physical fitness. Interview data were transcribed and coded using a combination of open and a priori coding to extract significant statements that were analyzed into clusters of meaning that described key elements of the students' experience. Video-taped observations were analyzed to use behaviors during MFF activities as a means of checking interpretations of the interview data. Interpretation of the final structural analysis suggested that students did not have a good understanding health-related fitness or how it is achieved; however they enjoyed participating in inclusive physical activity, and were planning to add more physical activity to their lives. Recommendations include an examination of physical activity programming and an increase in programs that serve participants with varied needs. Developing more student-centered programs that teach or include fitness education can decrease the number of students lacking physical fitness and increase the population of those who carry fitness activities and better health with them into the future.

Understanding Middle School Students' Perspectives Regarding Physical Activity and Fitness

by

Susan Yesalonia
M.S., Ohio University, 1981
B.S., State University of New York at Cortland, 1979

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education Program

Walden University

April 2009

UMI Number: 3352936

INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.
In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

UMI®

UMI Microform 3352936
Copyright 2009 by ProQuest LLC
All rights reserved. This microform edition is protected against unauthorized copying under Title 17, United States Code.

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

ACKNOWLEDGMENT

This study is the culmination of a pursuit to earn the distinct honor of Doctor of Education. Although it took strong will, dedication and perseverance to personally complete this degree, it could not have happened without the love and support of my family, friends, colleagues, and the university I am employed by. I would like to thank my husband and two sons for their unconditional support, encouragement and patience through the past four years. It has been a long journey and my honor is their honor! I would like to thank my friends and colleagues for their advice, friendships, and shared enthusiasm to complete this work, with a special thanks to the Principal at my study site. I would like to thank my University for the financial supports the school provided to support this research project. Finally, I would like to thank my Doctoral Committee members for their countless hours of work and their encouragement supporting me through this effort.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

SECTION 1:

INTRODUCTION TO THE STUDY

Introduction

"Children are a torrent of physical activity! Unfortunately, for far too many youngsters this torrent of physical activity becomes a trickle by the time they enter adolescence" (Graham, Holt-Hale, & Parker, 2007, p. 4).

Today, childhood obesity has become an epidemic, a sedentary lifestyle has become common, and children are growing up lacking physical fitness. The consequences of inactivity are well documented and are usually taught in health and physical education curriculums. The factors leading to physical inactivity are also becoming well understood by health and education professionals. What is missing is the understanding of why young people still choose to avoid physical activity as they grow and mature. Knowing the consequences, why do some children choose to participate in predominantly sedentary activities versus physical activities? Developmentally, what biological or behavioral aspects of growth and maturation affect an individual's desire to participate in physical activities? How do traditional physical education and activity programs affect a child's desire to participate? This study will focus on understanding the perspectives of identified middle school students who lack physical fitness, and their experiences participating in physical activities. Phenomenological research methods will be used to gain an understanding of the perceptions of these students before and after they participate in an exclusive, invitation only, after-school fitness intervention program, *Moving for Fun.*

A Societal Problem: A Lack of Youth Fitness

The lack of physical activity among Americans of all ages is a health risk (NASPE, 2004, p. 2). A considerable amount of literature reports research on the dangers of children living an inactive or sedentary lifestyle (Corbin, 2002; Corbin & Lindsay, 2005; MacDougall, Schiller, & Darbyshire, 2004; Sallis & Prochaska, 2000). Sedentary school-aged children are increasingly less fit and suffer from consequences related to the lack of health-related physical fitness, including obesity and other hypokinetic disorders or illnesses that are caused partly by the lack of regular physical activity (Corbin & Lindsay, 2005).

Young children who should thrive on activity are less active now than in the past. Time spent viewing television, using computers, and using popular motorized toys have affected movement trends in the young. Once children enter school, activity decreases because of the nature of the school setting. Physical activity that once was built into the school day through physical education, recess, and after-school athletics and activity programs is decreasing; schools have eliminated recess and physical education programs because of economic factors or to gain more time for academics (Corbin & Pangrazi, 2007). Losing these opportunities to be active at school now contributes to another problem: rising numbers of physically unfit students.

Physical Activity and Physical Fitness

The human body is mechanical in nature. Imagine letting a car sit idle for days, weeks or months, or putting the wrong fuels in it. It would not work very well. The human body is the same. Physically, body systems work together to keep the body running right. If a system breaks down, the body will not run well and may shut down; if

a system is missing an essential ingredient, it will run inefficiently. Physical activity is one of those essential ingredients the body needs to operate at peak performance. Without physical activity, muscles shrink in size and become weak, or they may lose elasticity, making movement stiff; heart may not pump blood efficiently, as the lungs may not use oxygen efficiently; bones will lose density, and excess calories may become fat. Being physical active in a wide variety of activities helps keep the body healthy and running smoothly.

To be physically fit, one must be physically active. Physical fitness is an "adaptive state that varies with the individual's growth and maturity status and with habitual physical activity and lifestyle" (Malina, Bouchard, & Bar-Or, 2004, p. 6). A person can choose to maintain physical fitness by participating in a wide variety of physical activities. Physical fitness can be categorized into health-related fitness or performance-related fitness, depending on the goal. Health-related fitness is fitness everyone needs which positively contributes to the health status of the body (Corbin, 2005). Performance-based fitness is what skilled athletes or performers need to be successful in their sports. This study focuses on using physical activity to improve health-related fitness.

Health-related fitness is assessed by measuring cardiovascular fitness, flexibility, muscular endurance and strength, and body fatness or body Mass Index (Hale, 2005; Corbin, 2005). Health-related fitness promotes both physical and psychological well-being. Physically, healthy bodies work more efficiently and have greater resistance to disease (Hale, 2005). Fit individuals feel better, look better, and have more energy (Corbin & Lindsay, 2005). Psychologically, being fit increases self-esteem and reduces

feelings of depression and anxiety (Himeburg, Hutchinson, & Roussel, 2003). Fit students are less likely to develop hypokinetic conditions (Corbin, 2005). In addition, "the healthy physically active student is more likely to be academically motivated, alert, and successful" (Council of Physical Education for Children, 2001, p. 1).

Recent research cited the need to reverse the trend toward growing numbers of unfit children, especially children classified as obese, having a Body Mass Index (BMI) of 30 or above (Hale, 2005): "Since 1980 the incidence of obesity among teens in the United States has increased from 5% to 14%, an increase of almost 300 %" (Corbin & Lindsey, 2005, p. 46). Obesity leads to a loss of mobility, underdeveloped motor skills, and sedentary behavior, because participation in physical activity becomes difficult (Malina et al., 2004). Lack of physical activity can lead to low levels of health-related fitness.

Higher incidences of childhood obesity have led to increases in the onset of Type II diabetes: "Type II diabetes, once thought to be an adult's disease, is becoming more common among youth, partly because it is linked to overfatness and obesity" (Corbin & Lindsey, 2005, p. 221). Unless current trends reverse, it seems likely that one third of all children born today will develop Type II diabetes during their lifetimes and can therefore expect a shortened life expectancy (Olshansky et al., 2005). According to Van Staveren and Dale (2004), childhood obesity will contribute to increases in hypertension, cardiovascular disease, and psychological problems among children.

Problems associated with unhealthy weight are not limited to physical problems. Overweight youth are also at higher risk for social and psychological problems such as low self-esteem, depression, eating disorders, and types of social discrimination (Brown,

Birch, Teufel, & Kancherla, 2006). These problems can interfere not only with physical achievements, but with cognitive achievement and affective quality of life as well. Obese or overweight unfit youth are only part of the total population of unfit youth. This population also includes youth who have healthy BMI measures but may lack fitness in the four other areas of health-related fitness.

Often, unfit youth also lack competent motor skills that lead to confident participation in many physical activities. To feel good playing basketball, a person needs to feel competent at dribbling, passing, catching, and shooting the basketball. To play volleyball, a person needs to feel competent to serve, bump, and set the volleyball. If skill competence is lacking, the person will be less apt to participate in activities. "Children who possess inadequate motor skills are often relegated to a life of exclusion from the organized and free play experiences of their peers, and, subsequently, to a lifetime of inactivity because of their frustrations" (Seefeldt, Haubenstricker, & Reushlein, as cited in Graham, Holt/Hale, & Parker, 2004, p. 28).

To be healthy participants in a variety of physical activities, students require some of each aspect of health-related fitness and competence in most or all fundamental motor skills and movement concepts. Physical education and community physical activity programs should provide a variety of activities that help school-aged children of all grade levels gain fitness and competence. The National Association for Sport and Physical Education (NASPE) describes a physically educated person as one whom

a) has learned skills necessary to perform a variety of physical activities,
b) knows the implications of and the benefits from involvement in physical activities,
c) participates regularly in physical activity,
d) is physically fit, and

e) values physical activity and its contribution to a healthful lifestyle. (NASPE, 2004, p. v)

To instill the personal value of physical activity in each student is a challenging objective for physical educators. When this objective is met, it can have a positive effect on the personal health of students in the future.

NASPE recommends that children aged 5 to 12 years get at least 60 minutes and up to several hours of physical activity a day (Kun, 2003). As children mature, recommendations change. All adolescents should be physically active 30 to 60 minutes daily, or nearly every day, as part of developmentally appropriate play, games, sports, work, transportation, recreation, physical education, or planned exercise, in the context of family, school, and community activities (Corbin & Pangrazi, 2007). Many school-aged students in both elementary and secondary levels of education have little opportunity to participate in these recommended levels of physical activity during school, which contributes to lack of fitness and to motor skill incompetence. This situation requires students to balance levels of physical activity outside of school.

Outside the regular school day, at times when many children could be active, homework, the use of computers and video-games, program availability and safety issues all can affect activity levels of school-aged children. “Perhaps the single most important time to increase physical activity and decrease sedentary activities is after school between three and six p.m.; a time when children can be active, but often are not” (Kun, 2003, p. 30). Children can have opportunity to be active during this time by participating in extra-curricular activity programs, such as athletics, intramurals and non-traditional activity programs, as well as community-based activity programs.

Middle School Students and Barriers to Physical Activity

As children grow, mature, and psychologically develop, biological and behavioral changes can affect physical activity. Growth is the dominant biological activity for about the first 2 decades of human life (Malina et al., 2004). Maturation, the biological process of becoming mature, occurs in all tissues and varies depending on the biological system being considered:

> Maturation refers to the timing and tempo of progress toward the mature biological state. Timing refers to when specific maturational events occur (e.g., age at the appearance of pubic hair in boys and girls) or the age at maximum growth during the adolescent growth spurt. Tempo refers to the rate at which maturation progresses (e.g., how quickly or slowly the youngster passes from initial stages of sexual maturation to the mature state). Timing and tempo vary considerably among individuals, and variation in progress over time implies variation in rate of change. (Malina et al., 2004, p. 5)

Psychologically, development refers to interrelated behavioral changes and competences that develop overtime considering the cognitive, social and emotional domains. Competence can also be affected by the psychomotor domain, or the acquisition and refinement of skillful performance in a variety of motor activities (Malina et al., 2004, p. 5). These processes can affect whether, and if, middle school students choose to participate in physical activity.

School programs are an important way to increase physical activity of children, because they affect the behavior of children on a daily basis. For middle-school-aged students, physical education has the potential to impact young adolescents' developing knowledge, attitudes, beliefs, and behaviors in a positive and meaningful ways that may endure across the lifespan (Mohr, Townsen, & Pritchard, 2006). Health and physical education programs that are focused on the personal and educational needs of students

are vital to the development of the middle school student, and need to be viewed as *an essential element* in the school curriculum to educate the whole child (Mohnson, 2003). After-school physical activity programs can also provide students with the opportunity to practice motor skills, increase the physical activity levels, extend their physical education learning, and participate in a wide variety of new and exciting activities (Mohnson, 2003).

The Centers for Disease Control and Prevention (CDC) recommend that schools offer after-school intramural programs to give all children the opportunity to be physically active on a regular basis (Soukup, 2007). According to the CDC (2006), schools should provide extracurricular physical activity programs that offer diverse, developmentally appropriate activities—both noncompetitive and competitive—for all students. Often, however, after-school activities are limited to athletic programs, which students who lack fitness may shy away from or be cut from. Extra-curricular programs specifically directed to the needs of students who lack fitness are rarely supported.

According to U.S. Department of Health and Human Services (1996), the most dramatic drop in physical activity levels occurs around age 14, and this decline continues through adolescence, often into adulthood. During middle school biological, psychological, social, cultural, and environmental barriers can develop that have a negative effect on adolescent levels of physical activity (Himberg et al., 2003). Lack of time, homework, body image, self-esteem, athletic ability, peer and family influences all can influence an adolescent's choice to participate in physical activities. Understanding the barriers to physical activity and how they affect personal choice and behavior is a

critical part of understanding how to get inactive young teens to choose to participate in physical activity so they can reap the benefits participation brings.

Problem Statement

This phenomenological study was stimulated by the desire to understand those who avoid participation in physical activity, often those who also lack health-related physical fitness and are at risk for future health problems. The study focused on middle school students because they are experiencing a time of change that can influence activity patterns for life. The study investigated identified middle school students' perceptions regarding their participation in physical activity, using *Moving for Fun,* a 7-week, biweekly after-school fitness intervention program led by second-semester sophomore students from a physical education teacher education program at a local university. Research investigating the use of after-school fitness intervention programming for middle school students is scarce considering the trends of today and the needs of students identified as lacking physical fitness. The following research question was used to focus this study: How do identified middle school students perceive themselves participating in physical activity before and after participating in an exclusive fitness intervention program, *Moving for Fun*?

Nature of the Study

Phenomenological study methods were chosen to learn the perceptions of identified middle school students who participate in a program that exclusively serves students who lack physical fitness. The program is specifically designed to motivate participation in physical activities by intentionally removing known barriers that can inhibit participation. "The defining characteristic of phenomenological research is its

focus on describing the 'essence' of a phenomenon from the perspectives of those who have experienced it" (Merriam & Associates, 2002, p. 93); the phenomenon that was studied is the experience identified middle school students had participating in a fitness-intervention physical activity program. Perceptions and attitudes regarding past physical activity experience were used to establish a frame of reference to understand the experience of participating in an exclusive activity-based program, *Moving for Fun (MFF),* a program that limits participation to identified middle school students.

"Phenomenological study describes the meaning of the lived experience for several individuals about a concept or the phenomenon" (Creswell, 1998, p. 51); thus, this study sought to learn about the past and new experiences of identified middle school students considering their participation in physical activities. This meaning was discovered using open-ended prompts and probes in a private interview setting that required study participants to reflect personally on their experiences before they responded. Eight *MFF* participants took part in the study, 4 males and 4 females, and each participant was interviewed twice. The first interview was conducted before study participants participated in *MFF*, to learn how each student feels initially about participating in physical activities; the second took place after students participated in *MFF*. During *MFF* the researcher video-taped several *MFF* sessions to collect supplemental data from study participants as they participated in activities. Each study participant was observed three times using video-taped sessions. All data were transcribed and analyzed to identify common themes and concepts related to participation in physical activities.

To the researcher, "the lived experience was the process of phenomenological procedure itself – the methodological movement among description, reduction, and interpretation" (Merriam & Associates, 2002, p. 117). In conducting this study, prior to collecting data, the researcher, an experienced secondary physical educator and college professor, reflected on her own prejudices, viewpoints, and assumptions toward participation in physical activities in a self-interview responding to pre-*MFF* interview questions and prompts. As the researcher worked with *MFF* study participants, the researcher's personal views were bracketed concerning personal experiences to open her mind to the views of middle school students. This reflective process continued throughout the study to ensure that the perspectives of middle school study participants are 'heard' and recorded accurately.

Purpose of this Study

The purpose of this study was to learn the perceptions of identified middle school students, students who lack physical fitness, about participating in physical activities in various settings, including inclusive school settings (such as physical education and/or recess) and exclusive settings (such as *MFF* fitness intervention program). The researcher hopes this study will contribute to the larger body of knowledge that seeks to understand middle school students, their participation in physical activities, and their acquired levels of physical fitness.

Conceptual Framework

Social-cognitive models have dominated the exercise psychology literature. "Social-cognitive factors are psychological variables that are transmitted to people from society by learning and reinforcement history" (Dishman, Washburn, & Heath, 2004, p.

398).. This study is supported by three theories: the *social cognitive theory,* the *self-determination theory* and the *experiential theory.* The most widely accepted theoretical model of behavior applicable to physical activity is Bandura's social cognitive theory (Netz & Raviv, 2004). This model is relevant to health behavior because it "stands in clear contrast to theories of human functioning that overemphasize the role that environmental factors play in the development of human behavior and learning" (Pajares, 2002, p. 2). What is missing in many other theories is introspection, or how the individual processes and interprets outcomes. Bandura (2003) used a triadic model to explain how human behavior is affected by personal, behavioral, and environmental aspects.

The social cognitive theory assumes there is a give-and-take relationship (called reciprocal determinism) between three components: a) personal beliefs and characteristics (to perform a skill or task); b) the physical environment where the behavior is performed; and c) individual behavior towards achieving a goal (Bandura, as cited by Kamla, Davis-Brezette, & Larson, 2006). These components are always at work at the same time but are also in constant fluctuation. Physical educators and fitness specialists can use the social cognitive theory to build confidence and encourage participation in activities:

> Using social cognitive theory as a framework, teachers can work to improve their students' emotional states and correct their faulty self-beliefs and habits of thinking (personal factors), and improve academic skills and self-regulatory practices (behavior), and alter the school and classroom structures that may work to undermine student success (environmental factors). (Pajares, 2002, p.2)

In the social cognitive theory, three postulates explain motivation to engage in physical activity: self-efficacy, outcome expectations, and self-evaluated satisfaction or dissatisfaction (Netz & Raviv, 2006). Self-efficacy refers to confidence in one's physical

abilities, and is highly correlated to present activity behavior as well as future activity behavior (Malina et al., 2004). Efficacy develops when a person has the drive to know and learn, the motivation to do, and the confidence to cope with stress to enable success, and can make choices that will have a positive effect on her or his life (Bandura, 2003). If a person believes she or he has the stamina and skills to participate in an activity, the person most likely will participate without hesitation. Outcome expectations "are based on the belief that carrying out a specific behavior will lead to a desired outcome" (Netz & Raviv, 2006, p. 36). Here, if the desired outcome is to spend more time with a friend, a person may join an activity to be with the friend. Self-evaluated satisfaction or dissatisfaction is an outcome in which individuals evaluate their performances on the basis of certain standards and are either satisfied or dissatisfied. Here, if a person participates in physical activity program to lose weight and no weight is lost, she or he may stop participating in that program.

The self-determination theory (Deci & Ryan, 1985) is similar to social cognitive theory and can also be used to explain variables that motivate people to become or stay physically active. "This model suggests that all individuals possess three innate psychological needs. Specifically, all human beings are believed to have needs for *autonomy*, *competence*, and *relatedness*" (Kilpatrick, Herbert, & Jacobsen, 2002, p. 37). In this model, autonomy represents freedom of choice and sense of internal control. Competence is a sense of mastery in the things we choose to do. "Relatedness is a construct characterized by satisfaction and involvement with the social world" (Kilpatrick et al. 2002, p. 37). This model suggests that these desires lead to participation in activities to ensure that these needs can be met.

According to the self-determination theory a person's motivational state reflects the extent that his or her needs are met. This model identifies four motivational states aligned on a continuum. An individual's motivational state can range from being *intrinsically motivated* to *amotivated.* "The most desirable level of motivation on this continuum is intrinsic motivation, thought to exist when an individual chooses to engage in activity for the sake of the activity itself rather than an external reason" (Kilpatrick et al., 2002, p. 37). Because participation is based on personal appreciation of the activity, rather than a benefit provided by the activity, this is the most desired type of motivation.

The experiential learning theory was authored by Dewey (1938) who believed that knowledge is socially constructed and based on experiences.

> Dewey's theory is that experience arises from the interaction of two principles – continuity and interaction. Continuity is that each experience a person has will influence his/her future, for better or worse. Interaction refers to the situational influence on one's experience. In other words, one's present experience is a function of the interaction between one's past experiences and the present situation. (Neill, 2004)

If a person experiences pleasure or satisfaction in an experience, he or she will want to repeat that experience.

Experiential learning involves reflecting on a direct encounter with a phenomenon (Smith, 2001). Participation in physical activity is the phenomenon this study will examine. To motivate participation in physical activities, several researchers suggest that activity should be perceived as enjoyable and fun. O'Reilly, Tompkins, and Gallant (2001), stated that students often use the word "fun" to predict or evaluate the worth of activities in which they engage (p. 211). If the promise of fun acts as a motivator and draws students into (physical) activity, activities that teach skills should be designed to be

pleasurable and to enable the participant to pursue the activity in the future as well as socialize with a group (O'Reilly et al. , 2001). Chen, Darst, and Pangrazi (1999), suggest that if students feel enjoyment and a sense of fun while participating in physical activity, they will be more inclined to be more active in the future.

These three social cognitive theories provide the theoretical background to understand a person's decision to participate in physical activities. For this study, these theories are used to understand the perceptions of identified middle school students before and after participating in a fitness intervention program. In the literature review of this study, each theory will be further explored to add depth to this discussion.

Operational Definitions

There are certain definitions and terms that should be understood when reading this study.

Barriers to physical activity: Individual biological, psychological, social, cultural, and environmental factors that impede participation in physical activity.

Exclusive physical activities: Physical activities that require an invitation to participate.

*Experiential Learning: "*The principle that development of experience comes about through interaction means that education is essentially a social process" (Dewey, 1938, p.58).

*FITNESSGRAM***:** A market research-based physical fitness assessment developed for youth by experts at the Cooper Institute in Dallas, Texas (Corbin & Lindsay, 2005). Six assessments are used in the pre-test for this study: Body Mass Index (BMI), PACER or mile run, curl-ups, modified pull-ups, back saver sit-n-reach, and trunk lift.

Health-related Fitness: Fitness that helps a person stay healthy, and that includes meeting acceptable measures of cardio-respiratory fitness, flexibility, muscular strength, muscular endurance, and body mass index (BMI). (Corbin & Lindsay, 2005, p. 12).

Hypokinetic disorders: Health problems or illnesses that are caused partly by the lack of regular physical activity (Corbin & Lindsay, 2005, p. 320).

Identified middle school students: Middle school students who have achieved the 'healthy zone' in '0' or '1' health-related *FITNESSGRAM* assessments for their age group .

Inclusive physical activities: A philosophy that asserts all individuals, regardless of ability, should be able to participate in physical activities and feel they belong and are valued.

Pre-service teacher: A PETE undergraduate student; in this case, a second-semester sophomore.

Physical self-concept: A domain within a person's global self-concept that includes self-perceptions of physical condition, physical strength, body image, and sports competence (Fox & Corbin, 1989).

Service Learning: A complex multi-layered pedagogical strategy aimed at meeting community and individual needs. Program goals involve collaborative planning, implementation, monitoring, reflection, and evaluation of goal attainment.

Service-learning community partners: Businesses or agencies who provide mentoring in exchange for service, and whose needs will be met through service learning. Mentors with community partner agencies provide expertise and guidance for aspiring professionals, here University PETE professionals.

Assumptions

1. Middle school teachers were trained to use FITNESSGRAM properly.
2. Teachers had inter-rater reliability when assessing student fitness.
3. Pre- and post-*MFF* interview responses were sincere and truthful.
4. The researcher bracketed pre-conceived notions about participation in physical activities.
5. Pre-service teachers were trained to prepare and lead *MFF* program activities.

Limitations

1. FITNESSGRAM identified some *MFF* participants who appeared to have healthy levels of health-related physical fitness. Two students who appeared to be fit agreed to join MFF after being randomly selected and agreeing to become study participants.

2. As an after-school activity, *MFF* student participation was limited by student choice.

3. As an after-school activity, *MFF* student participation was limited by transportation issues.

4. *MFF* middle school participants were from one central Vermont middle school.

5. The *MFF* interview and observation data transcription and analysis were open to the weaknesses and bias of the researcher.

Significance of this Study

This study was significant for many reasons. First, few if any studies have specifically examined the point of view of middle school students who lack physical fitness and their perspectives towards participating in physical activities. Second this study discovered how identified middle school students felt about participating in an

exclusive after-school fitness intervention program, *MFF*, a program designed to be safe, enjoyable and fun that hoped to break down internal and external barriers that typically affect adolescents and their participation in physical activity programs. Third, compared to other studies, this study showed how physical fitness test results could be used to help identify students who could benefit from participation in an exclusive fitness intervention program. Often, little is done with results of physical fitness testing, especially for those who perform poorly. Using fitness testing results to develop specialized programs for identified students to promote increased activity and fitness is a unique idea, one that has not been specifically reported as such in the literature. Finally, this study models how physical education teacher education programs can incorporate service learning into a pedagogical curriculum to support the needs of identified students in an after-school program, supporting the professional development of pre-service teachers.

Summary

This study sought to discover the attitudes and perceptions identified middle school students had before and after participating in an after-school fitness intervention program, *Moving for Fun.* It is understood that participation in physical activity can improve personal levels of fitness, and deter hypokinetic health problems associated with obesity and a sedentary lifestyle. Section 1 of this study provides background information that supports the need for this study. Section 2 reviews current research and literature related to the themes of this study: the present state of youth fitness in our nation, characteristics associated to personal development in middle school-aged students, barriers that affect middle school student participation in physical activity, and the theories that back this research. Section 3 describes study research methods; section 4,

the results of this study; and section 5, the summary, conclusions, and recommendations of this study.

SECTION 2:

LITERATURE REVIEW

Introduction

This phenomenological study focused on a group of middle school students identified as lacking health-related physical fitness, and their participation in an exclusive after-school fitness intervention program, *Moving for Fun*. This is a program that has a unique goal of motivating change in student behaviors by focusing on making participation in physical activity safe, fun, and enjoyable. The study group is a small sample of a growing population of young people whose inactivity has affected their physical fitness. This literature review focuses on recent research pertaining to the role of physical activity and physical fitness on health, developmental considerations of middle school students, barriers that can develop inhibiting physical activity in middle school students, exercise motivation, and after-school fitness intervention programs that have been designed to eliminate several internal and external barriers to participation in physical activity.

Teaching Children the Role of Physical Activity and Physical Fitness in Health

Children need to learn the significance that physical activity plays in their life and the health benefits of being physically active. Physical activity is body movement produced by skeletal muscle that results in energy expenditure. These movements can be analyzed many different ways.

> Physical activity has mechanical, physiological, and behavioral components. Mechanically, physical activity is measured in terms of power, force, velocity, acceleration, or work performed by the body. Physiologically, physical activity is defined by energy expenditure. Behaviorists address types of physical activity and the context or activities take place in. (Malina et al., 2004, p. 458).

Each component of physical activity can affect a person's desire to participate. This study considered mechanical and physiological components, but focused on the behavioral component.

Understanding Participation in Physical Activity

Participating in a physical activity is a unique and individual experience. The activity experience can be impacted by a person's knowledge, motor skills, physical fitness, attitudes, past activity experiences, and the type of activity being considered. Participation in physical activity is motivated by personal competence, feeling safe in the activity setting, being mentally engaged in the activity, and enjoyment.

Motor Skills and Physical Activity

Children need to acquire proficiency in a wide variety of motor skills that facilitate participation in many activities. Ideally, children acquire and refine fundamental movement skills such as locomotion (such as walking, running, leaping, jumping, and hopping), manipulation (such as ball rolling, throwing, catching, kicking, punting, striking, volleying, and bouncing), and stability (such as bending, stretching, twisting, turning, swinging, rolling balancing, starting, stopping, and dodging) during the elementary years of physical education. These fundamental skills must be developed and refined before specialized movement skills can be learned (Gallahue & Donnelly, 2003). Specialized movement skills are sport or activity specific such as tumbling skills (such as forward and backward rolls, handstands, or handsprings), soccer skills (such as dribbling a soccer ball, kicking a soccer, or trapping a soccer ball), or baseball skills (such as throwing a baseball, catching a baseball, or striking a baseball). The lack of motor skills

and ability can be frustrating for a child and poor motor-skill development may discourage physical activity (Stodden & Goodway, 2007).

Physical Fitness and Physical Activity

Physical fitness is one outcome of physical activity. The measurement of fitness is an important "surveillance system that tracks physical activity and risks for disease or injury" (Dishman et al., 2004, p. 42). Corbin and Lindsey (2005) defined physical fitness as "the ability of the body systems to work together efficiently" (p. 321). Physical fitness is divided into two specific categories; health-related physical fitness and performance related physical fitness. Health-related physical fitness is fitness everyone needs to stay healthy. Performance-related fitness enhances the ability to perform a sport or activities that require specific skills. This study was concerned with health-related fitness.

Health-related fitness includes five components: cardiovascular fitness, flexibility, muscular endurance, strength, and body fatness (Corbin & Lindsey, 2005). Health-related fitness levels are assessed using physical fitness tests such as the *President's Challenge* and *FITNESSGRAM.* This study feature the use of *FITNESSGRAM,* a battery of research-based health-related physical fitness assessments developed for youth by experts at the Cooper Institute in Dallas, Texas. Many schools choose to use *FITNESSGRAM* because of its underlying "HELP philosophy"; that is "**h**ealth is available to **e**veryone for a **l**ifetime – and it is **p**ersonal" (Meredith & Welk, 2005, p. 4). *FITNESSGRAM* as a product is also used because it offers *ACTIVITYGRAM,* a tool that provides students with personal feedback considering the amount and type of physical activity they are doing, using the *FITNESSGRAM Activity Pyramid* as a guide for including healthy amounts of light, moderate, and rigorous activity.

For this study, six *FITNESSGRAM* assessments were used to evaluate fitness in middle school students; BMI, the PACER or the mile run, curl-ups, modified pull-ups, back saver sit-n-reach, and trunk lift. "Criterion-referenced standards associated with good health have been established for children and youth for each of the health-related fitness components" (Meredith & Welk, 2005, p. 4). Using these standards, student data can be analyzed and used to develop a personal report card that summarizes student performance on each component of health-related fitness. Fitness records can be tracked over time by teachers, students, and parents. Test records can be used to plan programs, identify an individual's need, direct personal fitness programs, and provide data that summarize class, school, and district outcomes.

To be healthy, a person needs some fitness in each of the five health-related fitness components. Usually, health-related fitness can be maintained following the physical activity guides. The National Association for Sport and Physical Education (NASPE) physical activity guidelines suggest that children between the ages of 5 to 12 need 60 minutes or more of physical activity most days of the week (Kun, 2004). For adolescents, age 11to 21, the recommendation is to be active 30 to 60 minutes a day, and engage in 20 minutes or more of moderate to vigorous activity three times a week (Corbin & Pangrazi, 2007).

The benefits of having health-related fitness are many. "People who are physically fit feel better, look better, and have more energy" (Corbin & Lindsay, 2005, p. 13). Physical activity in adolescence may contribute to the development of healthy adult lifestyles, helping reduce chronic disease incidence (Hallal, Cesar, Azevedo, & Wells, 2006). Fit individuals have healthy body systems, greater stamina and work efficiency.

These individuals are also less likely to experience hypokinetic conditions or health problems associated with a sedentary lifestyle. Examples include heart disease, high blood pressure, diabetes, osteoporosis, colon cancer, and being over fat or obese. Many hypokinetic diseases, once thought to be adult health issues, now are prevalent among teens and many teens are not active enough to resist these conditions (Corbin & Lindsay, 2005, p. 43). The benefits of health-related fitness go further.

Numerous studies have been done relating aspects of physical health, physical activity for example, to the ability to learn and achieve academic success. Strong et al. (2005) report on a systemic literature review of 850 articles and 1220 abstracts, evaluated and reviewed by an expert panel. This report summarizes a systematic evaluation of the effects of regular physical activity on several health and behavioral outcomes in school-aged youth and develops recommendations for appropriate physical activity to yield beneficial health and behavioral outcomes (Strong et al., 2005). The report evidences body weight, including normal weight, overweight and obesity; cardiovascular health; asthma; mental health; academic performance; and injuries. Indicators of academic performance include grade point average, scores on standardized tests, and grades in specific courses; measures of concentration, memory, and classroom behaviors are indirect estimates. Evidence in academic performance shows that "physical activity has a positive influence on concentration, memory and on classroom behavior" (Strong et al., 2005, p. 735).

Exercise Physiology, Physical Fitness, and Physical Activity

Physiologically, children need to understand the role physical activity has in developing physical fitness. One of the principal ways people achieve fitness, health, and

wellness is by participating in regular physical activity (Corbin & Lindsay, 2005). People can be physically active doing a job at home or work, participating in a sport or recreation activity, or simply playing. “The increased energy expenditure that accompanies regular physical activity contributes to more efficient function of various (body) systems, weight maintenance, reduced risk of several degenerative diseases, reduced risk of early mortality, and overall improvement of quality of life” (Malina et al., 2004, p. 6).

The value a physical activity is identified by three exercise principles: the *principle of overload*, the *principle of progression*, and the *principle of specificity*. The principle of overload states that “the only way to produce fitness and health benefits through physical activity is to require your body to do more than it normally does” (Corbin & Lindsay, 2005, p. 61). If, compared normal activity patterns, you increase physical activity, you will “overload” your body and gain health benefits from the activity.

The second exercise principle states that “the amount and intensity of your exercise (activity) should increase gradually” (Corbin & Lindsay, 2005, p. 61). This is true because our body adapts to exercise; when we move differently (such as moving more, moving in new ways, or moving more intensely working our bodies harder) our body adjusts to the new patterns. To continue to gain the benefits participating in a physical activity, we need to gradually increase the amount and intensity of the exercise or activity over time. To ensure safe exercise practices, the intensity of an exercise can be monitored measuring heart rate, insuring participation in an activity stays in a healthy target zone for the age and fitness of the individual.

The third exercise principle is the principle of specificity. “The principle of specificity states that the specific type of exercise you do determines the specific benefit you receive” (Corbin & Lindsay, 2005, p. 62). Participation in different types or amounts of a physical activity can provide different benefits to our bodies. Participating in yoga for example can greatly improve the strength and flexibility of an individual; it won’t have the same effect as jogging though considering improving a person’s cardio-respiratory fitness. For this reason, a person will benefit from participating in a variety of physical activities that benefit the body in different ways.

Teaching young people how to include proper amounts of physical activity into their lives can be facilitated using the FITT principle. This principle is closely associated with the exercise principles of overload, progression, and specificity (Gallahue & Donnelly, 2004). The letters in FITT represent the characteristics of an activity: **f**requency of an activity, **i**ntensity of an activity, **t**ime for the activity, and **t**ype of activity (Corbin & Lindsay, 2005, p. 62). Young people can be taught how to use the FITT principle to incorporate proper amounts of the appropriate types of activity into their life.

Corbin and Lindsay (2005) use the Fitness for Life Physical Activity Pyramid to illustrate how activity should be incorporated into daily life to remain healthy. The Fitness for Life Activity Pyramid differentiates physical activity into four levels and provides healthy guidelines for individuals of all ages to incorporate physical activity into their life. The lower three levels of the pyramid suggest activities that are part of a healthy lifestyle, the fourth and highest level of the pyramid include activities that should be limited on a day-to-day basis.

> Lifestyle physical activities, or Level 1 activities, form the base of the pyramid (such as walking, playing golf, going bowling, or doing yard work) should be done all or most days of the week for at least 30 minutes, at moderate intensity.
>
> Level 2 activities include active sports and recreational activities (such as basketball, tennis, hiking, or canoeing) and active aerobic activities (such as biking, jogging, aerobic dance, or swimming) each of which should be done 3-6 days a week, for 20 minutes using moderate to vigorous intensities.
>
> Level 3 activities of the pyramid include flexibility (such as stretching, yoga, or gymnastics) and muscle fitness activities (such as resistance training, calisthenics, or wall climbing). Flexibility activities should be done 3-7 times a week, using moderate stretch, holding each stretch for 15-60 seconds. Muscle fitness activities should be done 2-3 times a week, using moderate to vigorous resistance.
>
> Level 4 activities on the activity pyramid identify activities associated with sedentary living (such as watching TV, using the computer, or playing video games) that should be limited. (Corbin & Lindsay, 2005, p. 64)

Psychology and Physical Activity

Behaviorally, children need to develop confidence and comfort to participate in physical activities in many different environments. When studying physical activity, a behaviorist needs to consider various types of physical activities (such as running vs. gymnastic vs. racquet skill based activities) and the context in which activity takes place (Malina et al., 2004). The context of activity must consider the environment in which the child functions (for instance playground, school, community, or private), the equipment being used (such as in gymnastics, high balance beams, low balance beams, lines on the floor), the grouping involved (such as large group vs. small group vs. individual activities, family vs. friends), and the organization of activities (such as required versus optional participation, formal vs. informal activities). The behaviorist also needs to consider the individual and their perceptions towards participating in physical activities

(such as self-efficacy based on skills and fitness, contributing and/or belonging to a team).

Children need to develop confidence and comfort to participate in physical activities in many different environments. Malina et al. (2004) state that habits and attitudes towards physical activity develop during childhood and adolescence, and these attitudes continue through adolescence into adulthood and may have a long-term influence on health into adulthood (p. 6). Educators and parents need to understand how self-concept develops and the impact self-concept and self-esteem can have on a person's desire to participate in physical activities. Research focused on the development of self-concept in childhood, youth, and adolescence suggests that developing a positive and healthy self-concept is regarded as one of the most important developmental tasks of human beings (Bracken & Lamprecht, 2003).

Self-perceptions determine if self-concept is positive or negative. According to Gallahue and Donnelly (2003),

> *self-concept* is a personal assessment of worthiness that is expressed in the attitudes one holds towards oneself. It is a value-free description of self in that it does not make comparisons with others. On the other hand, *self-esteem*, although frequently used interchangeably with self-concept, is our self-description influenced by how we think others view us. Taken together, self-concept and self-esteem represent the total of our perceptions of our worthiness and competence. (p. 122)

Self-concept is recognized as being multidimensional. Our general or global self-concept forms as specific dimensions of our self-concept develop. Gallahue and Donnelly (2003) recognize that six components form a positive self-concept; a sense of belonging, development of competence, a sense of worthiness, self-acceptance, recognizing and accepting one's uniqueness, and virtuous behavior (p. 123). Bracken and Lamprecht,

(2003) have slightly different theory believing the dimensions of self-concept include *academic, social, affective, physical, family,* and *competence* (p. 106). In either case, these dimensions influence the development of our total self-concept which forms through personal experiences and feedback from others and the environment.

Fox and Corbin (1989) identified *physical self-concept* as one dimension of our self-concept. This facet of self-concept has been shown to be multidimensional too. The essence of physical self-worth a person has is based on their perceptions of body attractiveness, sport or athletic competence, strength competence, and physical conditioning adequacy (Fox & Corbin, 1989; Welk & Joens-Matre, 2003). The development of physical self-worth can be explained using the youth physical-activity promotion model.

The youth physical-activity promotion (YPAP) model is a social-ecological model that was developed to study various factors that influence physical activity behavior in youths (Welk, 1999). According to Welk (2003) the model features three categories of factors: predisposing factors (such as knowledge, attitudes, and beliefs), reinforcing factors (such as peer, teacher, and parent influence), and enabling factors (such as fitness, skills, and opportunity). According to the YPAP model, children who feel they are "able" and feel that participating in activity is "worth it" are predisposed to being physically active. Children who are directly or indirectly encouraged to participate in physical activity by family and friends are considered reinforced. Children that possess skills and fitness who have access and opportunity to be physically active are considered enabled. Both reinforcing and enabling factors may have a direct influence on a child's

ability to be active, but can also act indirectly by shaping some of the predisposing factors (Welk & Joens-Matre, 2007).

> Most children start out with a physically active identity, as evidenced by the ease and willingness with which they run and play when given a chance but as they age, sociological, cultural, and personal forces develop, and physical activity becomes more of a choice among multiple options. (Welk, 1999, p.18)

Physical Education, Physical Fitness, and Physical Activity

Physical education plays an important role in the cognitive, affective, and motor development of students. "Research has demonstrated that children engaged in daily physical education show superior motor fitness, academic performance, and attitude towards school versus their counterparts who did not participate in daily physical education" (Council of Physical Education for Children, 2001, p. 2). The content of the middle school physical education program should center on students learning specialized skills and concepts that lead to enjoyment, confidence, and competency in a variety of activities (Himberg et al., 2003). Unless adequate time is allotted, though, the desired cognitive, affective, and psychomotor outcomes may not be achieved.

Despite the well-documented benefits of engaging in regular physical education and activity, it appears that many physical education programs are not adequately promoting physical activity and health-related fitness among young people (Mohr et al., 2006). In 2003, nationwide, the percentage of high school students enrolled in physical education was 56%: 71% of 9th graders, 61% of 10 graders, 46 % of 11th graders, and 40% of 12th graders (Shape of the Nation Report, 2006, p. 1). The 2006 Shape of the Nation Report state that NASPE recommends 225 minutes of physical education per week for middle school and high school youngsters. The fact is that only 6.4 %of middle

schools meet the daily physical education recommendation of 225 minutes per week for middle school for the entire school year for all students (Shape of the Nation Report, 2006, p.1). "At the least, students in middle school should take physical education for a total time equivalent to other subjects" (Mohnsen, 2003, p. 260). Unfortunately these ideals are not the reality in most schools.

This research s took place in Vermont, where Vermont School Quality Standards (2006) require "each school providing education in Grades 7 and 8 to offer students physical education at least twice weekly, or the equivalent thereof" (p. 14). There is no set number of minutes associated with this requirement, even though "physical education represents an area of the middle school curriculum that has the potential to impact adolescents' developing knowledge, attitudes, beliefs, and behavior in positive and meaningful ways that may endure across the lifespan" (Mohr et al., 2006, p. 18). Most Vermont schools do not accommodate NASPE recommendations of 225 minutes of physical education a week. Insufficient time in physical education contributes to the activity deficit's having a negative impact on health-related fitness and the skill development needed to develop confidence in participation in physical activity.

Developmental Considerations of Middle School Students and Physical Activity

Middle school students are individually unique, possessing a wide range of physical, intellectual, psychological, and social developmental levels. Physically, there are marked individual differences in growth and development. Both genders will experience increases in height, weight, heart size, lung capacity, and muscular strength. Their metabolisms will fluctuate, causing extreme restlessness or listlessness. Young teens tend to eat ravenously and have peculiar tastes, often taxing the digestive system

with large quantities of improper foods (California Department of Education, 1991). They tend to be fatter and unhealthier, which can lead to poor levels of endurance, strength, and flexibility. These changes can result in a lack of coordination and awkwardness. Young teens need to experience a wide variety of activities that support maximum participation and consider individual differences.

Girls tend to be more physically developed than boys, with the greatest physiological difference showing at about age 13. Girls also experience menarche usually around age 12, consequently facing responsibility for sexual behavior before full emotional and social maturity (Mohnson, 2003). The changes in their maturing bodies can make them feel awkward when participating in physical activity.

Middle school students vary greatly when intellectual development is considered, as their minds experience transition from the concrete-manipulatory stage to the capacity for abstract thought (California Department of Education, 1991). Students enjoy active learning experiences that involve meaningful group activities. Middle school students are intellectually at risk, facing decisions that potentially can impact academic values with lifelong consequences (California Department of Education, 1991). Academic performance often is not a priority as personal and social concerns dominate thoughts and activities. Physical activity programs offered to middle school students should be intellectually stimulating, advancing knowledge and understanding of a wide variety of sports and lifelong activities.

Psychologically, middle school students are erratic and inconsistent in their behavior, often affected by hormonal imbalances. Students at this age are very sensitive, moody and restless, often lacking self-esteem and confidence. They are seeking a

conscious sense of identity as well as acceptance from their peers. Considered psychologically at risk, middle school students encounter intense diversity in relation to themselves and others (California Department of Education, 1991). Physical activities need to be structured with student preferences in mind in an environment that is positive, safe, fair, and encouraging.

Socially, considering family and peer groups, middle school students experience conflicting loyalties. Peers are sources for standards and models of behavior; a student can be fiercely loyal to the peer group values, sometimes being cruel or insensitive to those outside the peer group (California Department of Education, 1991). Adolescents usually conform well to authority, but at times, they will challenge the rules and values of parents and authority figures to test the limits of acceptable behaviors. Middle school students are striving to define gender roles, searching to establish positive social relationships with members of the same and opposite sex (California Department of Education, 1991). At this age, boys tend to be extremely competitive and value high skill; girls fluctuate in friendships and may value skill to a lesser degree (Baumgarten & Langton, 2006). Physical activities need to be carefully planned, with well-established rules and procedures, limiting competition and focusing on team work, respect, and cooperation.

Factors Affecting Physical Activity in Middle School Students

In a comprehensive review of correlates of physical activity in children (3-12 years of age) and adolescents (13-18 years of age), Sallis, Prochaska, and Taylor (2000) identified a number of significant variables, both positive and negative, that influence physical activity. The review categorized factors associated with physical activity as

biological, psychological, social, and physical environment. Biologically, heredity, gender, body mass and nutritional status, health, sexual maturity, proficiency in motor skills, and physical fitness are factors that affect physical activity. Psychologically, self-efficacy, self-concept for activity, perceptions of barriers to activity, perception of physical competence, attitudes about activity and beliefs about activity can affect a person's participation in physical activity. Socially, parental and peer attitudes and behaviors, socioeconomic status, screen time and cultural values affect physical activity. Considering the physical environment where one lives, availability of facilities, safety considerations, days of the week and holidays, the season of the year, and climate all are factors that affect physical activity.

For middle school students, participation in physical activity can be influenced by many factors, often referred to as *determinants for physical activity*. According to the U.S. Department of Health and Human Services (1997), when teenagers were asked why they like to participate in physical activity in a national survey, they responded "because it's fun; they do it with friends; it helps them learn skills, stay in shape, and look better" (p. 1). Determinants of physical activity can be categorized into two broad categories. *Facilitators* promote physical activity or reduce sedentary behaviors; *barriers* are those things that discourage participation (Nahas, Goldfine, & Collins, 2003). Examples of facilitators include program availability, good facilities, and personal confidence to participate. Perceived barriers can be personal in nature, such as depression or fatigue; situational, such as workload or bad weather; or physical, such as lack of facilities, transportation or competent instruction (Nahas et al., 2003). Facilitators and barriers to physical activity can be categorized further considering categorized personal factors.

Himberg et al. (2003) categorize determinants of physical activity into four main groups: biological factors, psychological factors, sociological factors, and environmental factors. Nahas et al. (2003) add another category to these determinants, characteristics of physical activity. To understand participation in physical activity, each of these factors needs to be considered, as well as an individual's perception of facilitators and barriers that affect his or her participation.

Biological Factors

Biological factors that influence the physical activity of teens are age, gender, BMI, and health status. As people age, they tend to become more inactive. This becomes especially noticeable in the teenage years, particularly for girls. Boys are far more physically active than girls all through adolescence (Corbin, 2002), often dominating activities. A clear opposition can be seen between girls wanting to be physically active and at the same time feminine in the strong competitive culture often associated with physical activity (Allender, Cowburn, & Foster, 2006).

Adolescent girls and boys can have similar perceptions of perceived barriers to physical activity. Dwyer et al. (2006) explored perceived barriers to participation in moderate and vigorous physical activity among adolescent girls. "Participants' perceived barriers to participating in physical activity that included lack of time; involvement in technology-related activities; influence of peers, parents and teachers; concern about safety, inaccessibility of facilities and cost of using them; competition; and body-centered issues" (Dwyer et al., 2006, p. 75). In a similar study, Allison et al. (2005) found that males' "perceived barriers to physical activity included internal factors of individual characteristics, lower priority for physical activity, and involvement in technology-related

activities; and external factors of influence of peers and family, lack of time, and inaccessibility and cost of facilities" (2005, p. 155). Participation in physical activity for both girls and boys were influenced by time, peers, family, technology-related activities, inaccessibility, and concerns with individual characteristics.

BMIs associated with overweight and obesity (BMI > 30) can also be considered as a biological factor that impedes participation in physical activity. Excess body weight can make it difficult to participate in activity and can impair performance in most athletic events. Structurally, excess body weight taxes the muscular-skeletal system, often resulting in stress problems in the weight-bearing joints. In a study comparing muscular-skeletal fitness (MSF) and weight gain, it was found that MSF was inversely related to weight gain and to BMI (Mason, Brien, Craig, Gauvin, & Katzmarzyk, 2006). Muscular endurance, muscular strength, and bone strength are also affected by overweight and obesity, and these conditions also can foster the onset of osteoarthritis, or degeneration of cartilage and bone in joints (U.S. Department of Health and Human Service, 2002). Cardiovascular and cardio-respiratory efficiency are also affected by overweight and obesity. Moving excess weight causes the heart to work harder and energy to be spent on moving extra mass. Heart disease, hypertension, and breathing problems are associated with obesity, as is asthma and sleep apnea (U.S. Department of Health and Human Service, 2002). These conditions can make participation in physical activity uncomfortable for the overweight or obese individual.

Psychological Factors

Psychologically, many factors can influence teen participation in physical activity. The most important determinant of physical activity is self-efficacy, the

psychological concept that deals with a person's confidence in her or his ability to do something. Considering physical activity, "self-efficacy represents perceptions of personal efficacy or confidence regarding one's ability to be active on a regular basis" (Nahas et al., 2003, p. 47). One's confidence to play sports, work out at the gym, join community recreation programs, or just join in backyard activities can determine one's level participation. "Children and youth who exhibit a belief in their capacity to learn, change, or maintain a skill or behavior will also believe that they are capable of sprinting across the finish line or jumping Double Dutch" (Policy Studies Associates, 2006, p. 10). To feel good about participation, teens need a large repertoire of motor skills, fitness, and confidence in their ability to participate in an activity.

Positive psychology suggests participation in physical activity is motivated by the feeling of enjoyment. Enjoyment is felt when someone is having fun. Fun happens because a person has developed competent skills to participate and comfort and confidence in his or her ability to perform. Enjoyment is also felt when students have choice in how they will participate in activity. In a study related to student voice in physical education, middle school and high school students were asked to respond to statement s that described how they felt about physical education classes. Considering student choice, Couturier, Chepko, and Coughlin, (2005) reported that

> 75% of students would like to be able to pick their own activities, 73.6% would like to tell the teacher the activities they would like to do, 61% would like to choose what group of students they would participate with, and 54% would like to do a greater variety of activities" (p.174).

This study found that students chose to participate in physical education because they liked learning new games and activities, played team sports, had variety in activity and

had fun (Couturier et al., 2005). This information directly applies to attitudes towards participating in physical activities.

Psychologically, attitude towards physical activity is also affected by subjective norm. “Subjective norm is a person’s beliefs about what other people think about the behavior” (Himberg et al.,2003, p. 56). “Children’s activities put them in contact with certain types of peers, and that group’s norms, values, and behaviors help determine an child’s sense of identify” (Policy Studies Associates, 2006, p. 10). In the teenage years, a person’s perception of what peers and friends think, as well as family and the larger community can influence attitude towards participating in physical activity. If teens feel accepted and rewarded by their peers and others for their performances in a physical activity setting, they are more likely to have positive attitudes toward participation.

Fox and Corbin (1989) developed the Physical Self-Perception Profile (PSPP), an instrument that investigates how people make perceptions of their “physical self”. Answering open-ended questions, individuals rate themselves considering four domains, body attractiveness, sport or athletic competence, strength competence, and physical-conditioning adequacy, which have been shown to influence a person’s overall physical self-worth and their global self-esteem (Welk & Joens-Matre, 2007). The PSPP has been used on several groups to determine physical self-concept.

Dunton, Schneider, Graham, and Cooper (2006) used the PSPP in cross-sectional research which examined whether physical activity or physical fitness was more closely linked to physical concept in females ages 14 – 17. The study showed that physical self-concept is more closely related to physical fitness characteristics than it is to physical activity itself; highly fit individuals evaluated themselves considerably more favorably

across a variety of physical domains than less fit individuals (Dunton et al., 2006). Results of this study suggest that females that participate in physical activity at an intensity level that will improve physical fitness may enhance their physical self-esteem. Asci (2002) used the PSPP to investigate age and gender differences in physical self-concept among Turkish late adolescence. This study revealed that "gender differences in physical self-concept did not vary with age however, there were significant gender differences in sport competence, physical condition, body attractiveness, and physical strength (favoring males except for body attractiveness)" (Asci, 2002, p. 365). Several other investigations of self-concept among children have found similar findings showing boys have higher physical self-concepts than girls.

In Spain, Murcia, Gimeno, Lacarcel, and Perez (2007) studied differences in physical self-concept as well using a Spanish version of the PSPP. They considered gender, sport practice and levels of sport involvement in Spanish children, ages 10 to 11 years. Murcia et al. (2007) found boys had higher levels of perceived competence and greater self-confidence than girls in relation to sport activities; girls had more favorable perceptions of the physical appearance and physical strength than boys (p.1).

Welk and Joens-Matre (2007) used a youth version of the PSPP, the Children and Youth Physical Self-Perception Profile (CY-PSPP) to study the effect of weight on self-concept in normal and overweight youths. "Normal-weight youths reported significantly higher CY-PSPP scores on all four dimensions… over-weight girls had the lowest values of physical self-perception and overweight boys had lower perceptions of physical self-worth than normal-weight boys" (Welk & Joens-Matre, 2007, p. 44). In their conclusions,

Welk and Joens-Matre (2007) felt factors influencing physical activity in children needed more study to facilitate the promotion of physical activity.

The use of the PSPP has motivated the development of other tools that measured physical self-concept. Marsh and Redmayne (1994) developed the Physical Self-Description Questionnaire (PSDQ), a more inclusive tool that measures 11 scales of physical self-concept: strength, body fat, activity, endurance/fitness, sports competence, coordination, health, appearance, flexibility, general physical self-concept, and self-esteem. This tool is designed for adolescents 12 years of age or older and is appropriate for adults.

The PSDQ has been used to add depth to physical self-concept research. Klomsten, Skaalvik, and Espnes (2004) used the PSDQ to study gender differences in physical self-concept among elementary- and secondary-school students. "The investigation demonstrated gender differences in the global physical, endurance, strength, appearance, and body fat-scales. In the health, flexibility, and coordination dimensions, gender differences were smaller" (Klomsten et al., 2004, p. 1). Schmalz and Davison (2006) used the PSDQ to study differences in physical self-concept among pre-adolescents who participate in gender-typed (sports deemed socially appropriate for their gender) and cross-gendered (sports deemed socially appropriate for the opposite gender) sports. Here, results indicated that

> Boys and girls experienced different degrees of physical self-concept depending on the type of sport in which they participated; study participants that participated in both gendered-typed and cross-gendered sports experienced higher physical self concept that those who participated only in gender-typed sports. (Schmalz & Davison, 2006, p. 335.)

Sociological Factors

Several social and cultural factors can facilitate or deter the physical activity of a child. According to the U. S. Department of Health and Human Services (2000), participation in physical activity differs by race, gender, age, and education level.

> Generally, whites are more active than American minority groups, and men appear to be more active than women. Physical activity decreases with age but increases with education. American adults with the least formal education tend to be sedentary regardless of their age, and adolescents who are sedentary tend to have sedentary parents. After adolescence, girls show a bigger reduction in both school-based and leisure activity than boys. (Dishman et al., 2004)

According to Malina et al. (2004), commonly used indictors of socio-economic status that include income, educational level and occupation of parents, and neighborhood of residence all can affect the lifestyle of a child (p. 561). "Socio-economic status influences motor competence and activity through effects on lifestyle, such as rearing practices, opportunity for activity, and access to special instruction, equipment, and facilities" (Malina et al., 2004, p. 561). Lower-income families have access to fewer resources to support a healthy lifestyle… however "lower socio-economic status is said to be characterized by a more permissive rearing atmosphere, which provides greater freedom for physical activity" (Malina et al., 2004, p. 561). Children whose parents have a higher level of education often have the financial resources to support their participation in these community physical activities, because their education has led them to higher earning jobs. Those who can afford participation in community-based sport, dance, or recreation opportunities eventually may have the advantage when considering interscholastic sports.

According to *Everyone Plays!*: *A review of research on the integration of sports and physical activity into out-of-school time programs,* a report conducted by Policy

Study Associates (2006), the physical activity of a child can be affected by demographic and individual influences such as age, gender, race and ethnicity, family structure, and income. Here, a child's ethnic background (race or culture), biological characteristics (gender or age), socio-economic status (low-income vs. high income family), or family (single-parent vs. dual parent household, two- or one- income household) was found to affect participation in physical activity.

> In comparison of sports participation of children from largely white, middle class families and from low-income families who were primarily African American or Hispanic, researcher found that 75 percent of children from the middle-class families participated in sports, but only 40 to 60 percent of low-income children did so. (Simpkins, Ripke, Huston, & Eccles, 2005 as cited in Policy Studies Associates, 2006)

One of the primary factors to influence a child's physical activity is the structure and socio-economic characteristics of the family a child grows up in. "General living conditions associated with socio-economic status include variation in education background of parents, purchasing power for food, and in turn, nutritional status, access to and use of health-care facilities and programs, an overall regularity of lifestyle" (Malina et al., p. 554). To participate in activities outside the regular school setting often takes money; money for participation fees, equipment, transportation, and sometimes lodging.

According to Gustafson and Rhoades (2006), who conducted a 34-study review of parental correlates of child physical activity, the home environment is thought to be most important in shaping a child's physical activity behavior. "Not only do youth, particularly young children, spend much of their time at home, but it is in the home that they associate with their parents and siblings; perhaps the most important social influences on

children's activity patterns (Ward, Sauders, & Pate, 2007, p. 44). Gustafson and Rhoades (2006) feel:

> Parents are one of the most important socializing agents for children, and their physical activity behaviors are generally considered to be one of the strongest determinants of a child's activity patterns. Presumably, parents not only serve as role models, but also as "gate keepers" to physical activity, driving children to sporting events or registering them in exercise class or sports lessons. (p.80)

In reference to a child's physical activity, Gustafson and Rhoades (2006) examined parental physical activity levels, parental support for physical activity, and influence of one- versus both-parents, family socio-economic status, ethnicity, and intra-generational gender roles within the family. "With respect to parent-child activity levels, it was found that active parents are more supportive of their children's physical activity than non-active parents" (Gustafson & Rhoades, 2006, p. 94). It also appeared that family socio-economic status positively correlated to a child's physical activity patterns however there Gustafson and Rhoades felt more definitive research was needed.

The opportunities children have to be physically active can be affected by the fact that in most American homes, both parents or the only parent in one-parent families, need to work outside the home (FIFCFS, 2005 as cited by Ward et al., 2007, p. 45). After-school child care is often done in a latch-key setting where children stay inside until a parent can come get them which can restrict a child's opportunity to play outside and be active. According to Ward et al. (2007) this can "severely restrict a child's opportunity to be active during a critical time of the day" (p. 45).

Everyone Plays! also reported that social influences and self-perception played an important role in youth participation in out-of-school physical activity. Here, peer relationships, parental influences, and self-perceptions were the primary influences

affecting after-school activity (Policy Studies Associates, 2006). “Through words and deeds, family and friends can help or hinder efforts to be physically active” (Dishman et al., 2004, p. 403). As role models, the attitudes and habits parents, siblings, or friends have also can influence a child’s behavior.

Children will participate in physical activities to be with their friends; they may also cease participation in physical activities for the same reason. Family and friends can encourage physical activity by offering encouragement and praise, sharing chores to free time for exercise, or being an exercise companion. They can also “sabotage efforts by excessive nagging or by distracting a person from personal goals or tempting him or her with other activities that are appealing but sedentary” (Dishman et al., 2004, p. 403).

“Parents influence activity by encouraging, getting involved in, facilitating, and modeling as physically active lifestyle” (Welk, 1999 as cited in Policy Studies Associates, 2006, p. 8). As discussed earlier, a child’s self-concept was reported to influence out-of-school physical activity. “Children who believe they are good at a sport or other physical activity are more likely to participate in it than those who believe they can’t do the activity or can’t learn it” (Trost, Kerr, Ward, & Pate (2001) and Weiss (2000) as cited in Policy Studies Associates, 2006, p. 9).

Environmental Factors

Environmental determinants of physical activity are physical and social in nature. Physically, facilities, cost, climate and safety are factors; socially, support from friends and relatives is a factor (Nahas et al., 2003). People tend to be more physically active if recreational facilities are near their homes, and nearly twice as many people choose to walk or cycle in neighborhoods that are designed for self-powered transportation

(Cervero & Gorham, 1995).Teens living in low socioeconomic neighborhoods often lack transportation and finances to access parks, fitness centers, sports parks, and country clubs. Even if there is access, often city streets and spaces in these neighborhoods are deemed unsafe, especially for adolescents. In rural areas, outside of the school, these facilities may not exist at all. Some schools lack adequate gym spaces or the financial resources to effectively support extra-curricular sport and community activity programs, limiting opportunities to participate in extra-curricular activity programs. All too often, teens who cannot access safe physical activity settle into sedentary patterns once the last school bell rings.

At school, students need access to a quality physical education environment consisting of adequate and safe facilities, equipment and supplies.

> The environmental setting at school includes the immediate surroundings in which children are attempting to learn. It includes props such as facilities, equipment, and supplies, and also behavior settings such as the number of students in the class (or activity) and their ability to attend to the instructional cues that are provided by the instructor. (Gallahue & Donnelly, 2003, p. 61)

The curriculum a physical education program can offer is dependent on the facilities and equipment physical educators have to work with. Although most physical education programs have little opportunity to change their facilities except during the construction of a new school or renovation projects, a creative teacher can expand their teaching resources by exploring alternative community locations proximal to the school (such as parks, bike paths, rivers, and local pools) and securing free or low-cost services from businesses (such as golf courses, bowling alleys, skating rinks, or climbing centers) (Mohnson, 2003, p. 42).

Physical educators need to provide a safe environment that allows every student to learn. By law, a physical education teacher is obligated to act as a reasonable prudent person when they teach and lead physical activities. Mohnson (2003) states a physical education teacher can avoid negligence if they "adequately supervise activities, anticipate forseeable risks and warn students of any inherent risks, make sure the activity is suitable for the participants, and ensure that the activity takes place in a safe learning environment" (p. 46). This too would hold true for any teacher-leaders who supervise programs such interscholastic sports, intramurals, school sponsored before or after-school physical activity programs, and town recreation programs.

At school, the characteristics of the physical education program can facilitate or deter participation. Class size and composition, the teacher and their attitudes in the classroom, and the curriculum all can affect a student's participation in physical education class. A review of 15-year review of qualitative research on barriers and motivation to participate in sport and physical activity was conducted by Allender et al. (2006) from 1990-2004. Over 1200 papers were considered and 24 were used to explore the participants' experiences of sport and physical activity and reasons for participation or non-participation in sport and physical activity. Half of the papers (12) reported research where data were collected in community settings; the others came from general physician referrals, schools, sport and leisure clubs, and national sport governing bodies. No studies reported barriers to participating in sport and physical activity facing young children. However,

> For teenagers and young women, the strongest factor discouraging participation was negative experiences in physical education classes. Other major factors included the disruptive influence of boys in physical education as well as

> concerns over image and relationships with peers led to an increase interest in non-active leisure. (Allender et al., 2006, p. 831)

This study showed that participation in physical education was affected by several factors; "boredom with traditional sports offered in physical education, by the lack of skill competence, by over emphasis on competition, and by social perceptions that participation in sport and physical activity was 'babyish'" (Allender et al., 2006, p. 831).

According to *Everyone Plays!,* a significant environmental influence on physical activity is the physical environment a child lives in outside of school.

> Young people who live near inviting spaces where they can walk, run, and bike are more likely to be physically active than children who live in a neighborhoods where there are no sidewalks or bicycle paths. The same is true for children who have access to fitness facilities such as gyms, parks, and swimming pools, classes in aerobics and dance, and equipment such as jump ropes, basketball hoops, and Frisbees. (Policy Studies Associates, 2006, p. 5).

The nature of the neighborhood a child lives in can impact their physical activity. "Unsafe neighborhoods with few parks, no sidewalks, or high crime rates tend to discourage physical activity" (CDC, 2005 as cited by Ward, Saunders, & Pate, 2007, p. 45).

The environment inside the home as well as after-school responsibilities can impact out-of-school physical activity. Homes equipped with televisions with numerous channels, video games, computers and internet tend to make sedentary behaviors very attractive, especially when parents fail to regulate their children's access to these forms of entertainment (Ward et al., 2007). Access to exercise equipment (such as treadmills, exercise bikes, ping pong tables, bicycles, and basketball hoops), supplies (such as balls, bats, paddles, racquets, or jump ropes), or people to play with (such as siblings, friends,

or parents) as well as the weather and climate associated to where a child lives can impact their out-of-school physical activity.

Characteristics of Physical Activity

The last determinant to consider in this part of the literature review is the characteristics of physical activity that can facilitate or deter participation. As individuals vary, physical activities can vary immensely. Activities can be individual or team-based, competitive or non-competitive, high-risk or low risk, and involve regulated or open-ended responses. Some children are completely satisfied playing traditional team sports; others are repulsed by this. Those who work with children and adolescents in activity settings need to recognize the value of understanding what each person likes about physical activity. Couturier, Chepko, and Coughlin (2005) surveyed over 5000 middle and high school students, asking them to rate the most important reasons why they choose to participate in physical education. With regard to their perceptions about participating in physical education, middle school students

> liked learning new activities, the want to choose the group they work with, they participate because they are getting better, they think physical education is as important as English or Math, they are afraid others would make fun of them, and they don't feel comfortable changing in front of others. (Couturier et al., 2005, p. 175).

Greenwood and Stillwell (2001) used a 23-item Activity Interest Survey on 751 middle school students to determine activity preferences. "The findings clearly indicate that middle school boys and girls both differ and agree on their interests for specific activities" (Greenwood & Stillwell, 2001, p. 26). In some activities, boys and girls preferred coeducational participation and in others they preferred non- coeducational participation. Boys demonstrated a stronger interest toward archery, basketball, bicycling,

bowling, flag football, roller skating, soccer, swimming and wrestling, while girls had a tendency to prefer basketball, bicycling, gymnastics roller skating, soccer, softball, swimming, tennis and volleyball (Greenwood & Stillwell, 2001). The significance of these findings indicates that, to support the needs and interests of the students, it is important to allow students a voice in curricular decisions.

To overcome the barriers that may inhibit physical activity in middle school students, personal, biological, psychological, sociological, environmental factors, and characteristics of physical activities need to be considered in physical education curriculum development and in extra-curricular physical activity program design. The National Board for Professional Teaching Standards (1999) states that accomplished teachers of physical education create and sustain a welcoming, safe, and challenging environment in which students engage in and enjoy physical activity. Athletic coaches and leaders of extracurricular and recreation programs need to do the same. Depending on the purpose of the program being considered, planning needs to be developmentally appropriate to age and gender, and to be psychologically be safe, supporting inclusion and promoting respect, cooperation, and teamwork. Fun, enjoyment, and positive social experiences often are predictors of participation (Allendar et al., 2006). Programs should build competence and confidence in the skills and knowledge needed to participate in a wide variety of sport, lifetime, and fitness activities.

Motivation and Physically Activity

The discussion of involvement in physical activity needs to include the topic of motivation. Lox, Martin, and Petruzzello (2003) define motivation as “the degree of determination, drive, or desire with which an individual approaches or avoids a behavior”

(p. 333). "Organisms *approach* goals, or engage in activities that are expected to have *desirable outcomes,* and *avoid* activities that are expected to have unpleasant or *aversive* outcomes" (Beck, 2000, p. 3). Motivation that comes from within an individual is intrinsic motivation and motivation that comes from external factors is extrinsic motivation. Intrinsic motivation may stem from experiencing personal enjoyment and fun, personal improvement, or meeting a personal challenge. Extrinsic motivation may stem from earning a grade or award, social recognition, or tangible rewards.

There are several social-cognitive theories of motivation and learning associated with participation in physical activity. "In general, the purpose of motivational research is to examine the effects of personal and environmental factors on the internal process of motivation that, in turn, energizes and directs behavior" (Chen, 2001, p. 36). Three theories that specifically apply to the purpose of this study can be used to assess adolescent motivation to become fit and physically active: the *social cognitive theory,* the *self-determination theory,* and the *experiential theory.*

Social Cognitive Theory

The social cognitive theory (Bandura, 1986) has been applied most successfully to changing physical activity behavior. This theory proposes that behavior change is affected by interactions between the environment (such as green space for walking, safe places to walk, and partners to walk with); personal factors (such as previous activity experiences, fitness levels, and outcome expectations); and attributes of the behavior itself (such as enjoyment, moderate intensity, or desired benefits) (Bandura, 1986). A central concept in social cognitive theory is self-efficacy, previously defined. "According to the social cognitive theory, a person must believe that positive outcomes will follow if

he/she is physically active and that these positive outcomes outweigh any negative outcomes that might also be experienced" (Marcus & Forsyth, 2003, p. 34). Because self-efficacy centers on how the individual feels he or she will be successful in performing the desired behavior, it is generally considered to be a situation-specific form of self-confidence: confidence to participate in soccer does not imply confidence to dance (Lox et al., 2003).

Physical educators, coaches, fitness and recreation specialists can motivate participants using the social-cognitive theory by

> a) allowing participants to create their own activities, using developmentally appropriate activities, progress from simpler to more difficult activities, and provide choices in activities,
> b) Create a positive inclusive environment for learning and participation,
> c) Identify and acknowledge students' persistence in achieving goals. (Kamla, Davis-Brezette & Larson, 2006, p. 21)

Self-determination Theory

The self-determination theory (Deci & Ryan, 1985) is similar to the social cognitive theory: "This theory is designed to better explain affective, cognitive, and behavioral responses with an achievement domain (e.g., athletics, athletics) and has recently begun to draw the attention of exercise psychology researchers" (Lox et al., 2003, p. 48). The self-determination theory suggests that individuals desire to feel autonomous, competent, and related, and that this desire leads to participation in activities so that these needs can be met (Kilpatrick et al., 2002). These needs can be met by participating in physical activity.

Deci and Ryan (1985) link the concept of internalization to extrinsic and intrinsic motivation. "Self-determination theory proposes that the extent to which these needs are

met provides a description of an individual's motivational state, which ranges along a continuum of motivation from amotivated to intrinsically motivated" (Kilpatrick et al., 2002, p. 37). Between these extremes are four types of extrinsic motivation, integrated regulation, identified regulation, introjected regulation and external regulation (Lox et al., 2003). Figure 2, created by this researcher, combined the work of Lox et al. (2003) and Biddle and Mutrie (2001) to illustrate this continuum. As shown in this figure, self determination decreases along the continuum from intrinsic motivation to amotivation.

	Extrinsic Motivation				
AMOTIVATION (Lack of intention to engage in a behavior do to a lack of ability, value or desire)	External regulation (Process of engaging in a behavior for the purpose of obtaining an external reward)	Introjected regulation (Behavior is dictated by a self-imposed source of pressure)	Identified regulation (Behavior is motivated by personal goals guided by an external outcome)	Integrated regulation (Engaging in behavior to confirm one's sense of self)	INTRINSIC MOTIVATION (To know, accomplish, and experience stimulation)

(-) Negative ← Self-determination → (+) Positive

Figure 1. Self-determination continuum.

Kirkpatrick et al. (2002) state that the most desirable level of motivation on this continuum is intrinsic motivation, thought to exist when an individual participates in activity for the sake of participation itself, not external benefits or rewards. An intrinsically motivated person participates in activity for enjoyment, excitement and challenge. The self-determination theory can be used to explain motivation towards many behaviors, including physical activity. This model can be used motivate participation when programs are "aimed at enhancing an individuals' sense of competence and

autonomy and conducted in a positive, mutually supportive environment wherein satisfying social interactions can take place" (Lox et al., 2003, p. 50).

Experiential Learning Theory

The Experiential Learning Theory simply states that we learn through experience. "The principle that development of experience comes about through interaction means that education is essentially a social process" (Dewey, 1938, p. 58). While some experiences are educative, others are not; all experiences are continuous, influencing future experiences (Neill, 2004). Consider participation in physical activity; children learn through interaction what participation in physical activity means and feels like to them as individuals. Each experience influences the next. If a child playing soccer, for example, cannot physically able keep up with others, lacks skills to participate fully, is uncomfortable or threatened while participating, or is ridiculed by class or teammates, this can have a negative impact on that child's desire to engage in soccer in the future. Those leading children in activity settings need to be constantly alert to individual characteristics of participants and the past experiences of participants.

Research on motivation and exercise extends well beyond the three theories reported in this section. The theories and models presented can help researchers and practitioners understand and predict physical activity, as well as design program that motivate participants to become physically active. "At a time when physical activity has become a key feature of health promotion and disease prevention, ways of promoting physical activity remain a significant challenge" (Biddle & Mutrie, 2001, p. i). It is clear from the research presented, that a worthy goal for physical education and related

physical activity programs is to design programs that inspire young people to value physical activity and intrinsically motivation them to be active for a lifetime.

Fitness Intervention Programs

Promoting physical activity for children has received considerable attention during the last decade. During childhood, physical and psychological health is related to participation in regular physical activity (Sallis & Patrick, 1994). As stated earlier, NASPE guidelines for youth aged 5-12 years, recommend that children accumulate 60 or more minutes of developmentally appropriate physical activity on all or most days of the week (NASPE, 2004). Physical education often cannot meet this requirement; however, participation in out-of-school physical activity programs can.

Because most children attend schools, schools need to build in additional time for children to be active before and after school and physical educators need promote and encourage participation in community sport and recreation programs. “If physical education is going to play an important role in promotion of youth physical activity, exposing students to a range of fitness, sport, and recreation physical activities is only the start of the process” (Wallhead & Buckworth, 2004, p. 285). Beyond motivating physical education students and helping them to increase their perceived competence as movers, physical educators need to motivate, advocate, and provide opportunities for students to be physically active outside of physical education programs (CDC, 1997).

Physical education teachers can help bridge the gap between physical education and activity outside of physical education by working cooperatively with classroom teachers to:

a) Implement classroom activity and interdisciplinary instruction, fostering involvement in community physical activity or wellness programs,
b) Utilize national resources such as the President's Council on Physical Fitness and Sports (www.presidentschallenge.org) which provides online opportunities for students to track their own activity patterns and incentives to encourage student participation,
c) Develop incentive programs to get students involved in out-of-school physical activities, including before-school, lunch-break, after-school, and family-night physical activity programs,
d) Develop personal journals or logs to track physical activity that include reflections about health benefits and long-term outcomes of physical activity,
e) Role model healthy and active lifestyle behaviors. (Faber, Kullina & Darst, 2007, 28-31)

In a recent survey of children ages 9-13, 23% reported that they did not engage in any free-time physical activities while 77% participated in some, but not enough to meet NASPE recommendations (Centers for Disease Control and Prevention, 2005). According to the U.S. Department of Health and Human Services (2000), less than two-thirds of youth surveyed participate in vigorous exercise three or more times a week. In *Everyone Plays!:* A review of research on the investigation of sports and physical activity into out-of-school time programs conducted by Policy Studies Associates (2006) discussed earlier, researchers found children lacked adequate amounts of physical activity for reasons linked to environmental, demographic and individual, and social influences (p. 5). Eyler, Nanney, Brownson, Lohman, and Haire-Joshu (2006) reported that homework was the most commonly reported barrier to doing physical activities after school, followed by TV watching.

For a long time, fitness intervention programs have been used to support the needs of rehabilitating patients in the medical field. These programs are now being incorporated into homes, schools, and community programs to increase the physical activity levels of children. Home is thought to be the most important in shaping a child's physical activity

behavior. “Not only do youth, particularly young children, spend much of their time in the home, but it is in the home that they associate with their parents and siblings; perhaps the most important social influences on children’s activity patterns” (Ward et al., 2007, p.44).

Home-based Fitness Interventions

Home-based fitness interventions focus on family relationships. “Family-based interventions can be implemented as part of routine family activities, through changes in the household environment, or through professional guidance from health care providers” (Ward et al., 2007, p. 107).

> The family unit in which children live, the relationships between youth and the adults, and their interactions regarding health and well-being are strong forces that constitute one of the most important influences on short- and long-term health behavior. (Ward et al., 2007, p. 108)

Although ideal, this kind of intervention is difficult for families to do, especially without guidance. According to Ward et al. (2007) few family-based interventions exist.

School-based Intervention Programs

School-based interventions are geared toward increasing the amount of physical activity children have during the regular school day. School-based physical activity interventions typically are designed to improve the qualities of the existing physical education program, foster incorporating physical activity into the academic classroom, or coordinate several school programs to increase physical activity (Ward et al., 2007). Comprehensive and coordinated intervention programs can be facilitated by setting up a team of teachers, school officials, parents, and community members to coordinate eight interactive components identified by the Coordinated School Health program model

(health education, physical education, health services, nutrition services, counseling services, healthy school environment, health promotion for staff, and family/community involvement) to promote health and wellness in the school (Ward et al., 2007). Many schools have some or all of these elements, but these programs are not coordinated. A Coordinated School Health team can facilitate the pooling of school and community resources to promote physical activity in the school.

Community Intervention Programs

Community intervention programs have great potential if children or adolescents choose to participate in them. Typically, children or adolescents can opt to join before- or after-school recreation programs, community-based organizations (such as church groups, Boys and Girls Clubs, YMCA's, or Boy- and Girl-Scouts), private clubs or fitness centers, or clinical rehabilitation programs. "Unlike interventions that take place at school, community interventions take place in programs that children and adolescents are not required to attend" (Ward et al., 2007, p. 89). After-school, on weekends, or during the summer, when children and adolescents are free to pursue personal interests, some will pursue sports or community activity programs, others however will choose to be inactive watching TV, playing video games, using the computer, or talking on the phone.

There is no set method for organizing a community intervention. "Community physical activity interventions can be organized around a single purpose (such as promotion of physical activity in youth) or multiple outcomes (such as diet and physical activity behavior" (Ward et al., 2007, p. 90). Programs can be designed individually by an agency or collaboratively between two or more agencies. "Development of a program located in the community consists of finding an appropriate location, collecting local

information, designing a community-specific program, and implementing the program for a specified period of time" (Ward et al., 2007, p. 91).

Sample Intervention Programs

The Coordinated Approach to Child Health (CATCH) intervention program (originally the Child and Adolescent Trail for Cardiovascular Health) is one example of how schools, families, and communities can work to teach children how to be healthy for a lifetime. CATCH coordinates health education, food services, and physical education to teach elementary children how to live a healthy lifestyle. "CATCH is effective because healthy behaviors are reinforced thought a coordinated approach; in the classroom, in the cafeteria, in physical education, at home and after school" (Illinois Department of Public Health, 2008, p. 1).

> CATCH health education focuses on teaching children to identify, to practice, and to adopt healthy eating and physical activity habits. In the cafeteria, food service personnel deliver meals with lower total fat and lower saturated fat and help coordinate healthy messages with the rest of the school. (Illinois Department of Public Health, 2008, p. 1).

"CATCH physical education is a developmentally appropriate physical education program which develops health-related fitness, skill competency, and cognitive understanding about the importance of physical activity for all children" (University of Texas, 2008, p. 1).

The CATCH program was implemented and evaluated in 56 schools in four states; Texas, California, Minnesota, and Louisiana as the Child and Adolescent Trail for Cardiovascular Health. According to Perry et al. (1997) children who participated in CATCH were found to be less likely to consumer high-fat foods and were more likely to

be physical active outside of school. According to the University of Texas Prevention Research Center (2008)

> More than 1500 Texas elementary schools have adopted CATCH potentially reaching over 750,000 children. Schools in several other states (Illinois, Maine, Florida, Georgia, North Dakota, South Carolina, and New Mexico) have begun to use the program as well and the US Department of Defense uses CATCH in 320 of its overseas elementary schools. Furthermore, CATCH has been adapted for low-income Hispanic communities in the United States. (p. 2)

Outside of school, the CATCH Kids Club (CKC) extends the school-based CATCH program guiding after-school and summer physical activity programs. CKC is designed to intervene on three elements: education, physical activity, and nutrition.

> The educational component consists of five modules… designed to increase children's self-efficacy, knowledge and skills in nutritional and activity behaviors. The physical activity component includes ideas for age appropriate, fun, and inclusive physical activities that involve students in physical activity for at least 30 minutes each day and encourage moderate-vigorous physical activity 40% of that time. Lastly, healthy snack are incorporated in the educational lesson in order to increase students' ability to prepare healthy snacks for themselves (Ward et al., 2007, p. 95).

Another example of a successful school-based intervention program is Sports, Play, and Active Recreation for Kids (SPARK). SPARK was initiated in 1989 after it was found that "children receive physical education instruction irregularly and often get very little activity during class time" (Rosengard, McKenzie, Short, & Strelow, 2000, p. 2). The program is designed to increase activity during regular physical education classes and outside of school.

> A major emphasis in the SPARK curriculum was to improve teacher efficiency and to increase the amount of moderate- to vigorous-physical activity obtained during each class time. Traditionally physical education classes provided only 18 minutes of moderate- to vigorous physical activity per week whereas classroom teachers and physical education specialists using SPARK provided 33 to 40 minutes of moderate- to vigorous-physical activity, respectively. (Ward et al., 2007, p. 68)

SPARK Active Recreation (AR) began in 1996; this program was designed to supplement physical education classes (outside of school) and provide a research-based field-tested approach for all non-physical education activity providers "(Rosengard et al., 2000). SPARK AR focuses on balancing daily physical activity using out-of-school programs.

> Out-of-school programs have an opportunity to help children and adolescents obtain the physical activity the need for proper growth and development and overall health. SPARK AR features the use of health-related fitness activities, maximum participation for all children, and instruction and practice in a number of skills and activities for young people ages 5-14. (Rosengard et al., 2000, p. 5)

More information about the SPARK curriculums can be found at www.sparkpe.org .

Many companies offer grants to support these programs. For example, the General Mills Foundation (2007), in partnership with the American Dietetic Association Foundation and the President's Council on Physical Fitness, developed the Champions for Healthy Kids grant program in 2002. Each year, the General Mills Foundation awards 50 grants of $10,000 each to community-based groups that develop creative ways to help youth adopt a balanced diet and physically active lifestyle. In 2004, the General Mills Foundation grants were distributed in 25 states in the United States (General Mills, 2007). The following are examples of programs associated with these grants:

a) In Phoenix, Arizona, the Maricopa County Department of Health received a grant for *Promoting Lifetime Activity for Youth (P.L.A.Y.)*, a physical activity and nutrition program for elementary and middle school students that reached about 1500 African-American Youth.

b) In Atlanta, Georgia, Georgia State University Research Foundation, Inc. received a grant for *Atlanta After-School All-Stars Program,* a diet and physical activity behavior intervention program (BIP) incorporated into the existing after-school program.

c) In Brattleboro, Vermont, the Green Mountain Center for Healthy Schools and Communities received a grant for the *Windham Southeast Supervisory Union's Nutrition and Fitness Challenge,* a program for fourth-sixth graders in the area's eight elementary schools which included nutrition educational components and physical education. The students participated in fitness challenges, yoga, dance, and body image classes. (General Mills, 2007, p.1)

Another organization that sponsors fitness intervention programs is the California Adolescent Nutrition and Fitness Program, *CANFit*. "For over a decade CANFit has been engaging communities, and building their capacity to improve the nutrition and physical activity status of California's low income, ethnic youth 10-14 years old" (California Adolescent Nutrition and Fitness Program, 2004, p.1). Recipients of CANFit intervention grants are provided training and technical assistance to develop, evaluate, and disseminate effective culturally-appropriate nutrition and physical activity programs. The list of CANFit grant recipients and their programs is provided on their website.

Two studies were found that examined the effectiveness of one school-based intervention program, Promoting Lifestyle Activity for Youth (PLAY). The PLAY program is a process-oriented program that promotes moderate to vigorous activity using daily physical activity (Pangrazi, Beighle, Vehigh, & Vack, 2003). This program places the responsibility for meeting physical activity recommendations on the students using personally selected activities that students enjoy that meet their personal needs. Since its inception, more than 24,000 students have participated in the program each year (Pangrazi et al., 2003). To assess this program, researchers Ernest and Pangrazi (1999), used the Physical Activity Questionnaire for Older Children (PAQ-C). The results of this

study showed that children who participated in PLAY increased their physical activity significantly verse the control group.

Pangrazi et al. (2003) conducted a second study on PLAY this time examining the effects of the PLAY, a 12-week intervention program on student physical activity level defined by pedometer step counts and on BMI. Study participants included 606 fourth-grade students (315 girls, 291 boys) from 35 Arizona school divided into four groups based on participation in PLAY and/or existing PE program (Pangrazi et al., 2003). Findings provide valuable insight into the effectiveness of physical activity interventions such as PLAY with results indicating that the treatment was effective at increasing the physical activity level of children, especially girls (Pangrazi et al., 2003).

In an effort to encourage young children to develop healthy eating and physical activity habits, Eyler et al. (2006) developed and studied a tutoring mentoring program, Partners of all Ages Reading About Diet and Exercise (PARADE). The study involved 817 children between the ages of 5-12 from 20 school districts (nearly 100 school sites). PARADE involved several tutoring agencies such as OASIS Intergenerational Tutoring Program, Girls Incorporated, Big Brothers/Big Sisters (Eyler et al., 2006).

> Project PARADE includes a series of ten session plans that are delivered during the usual activities of the mentoring/tutoring agency. The themes of these session plans are eating more fruits and vegetables and active play. Project PARADE session plans have a matching storybook developed especially for each child based on how he or she answers survey questions about topics such as favorite fruits and vegetables and after-school activities. Also parents receive newsletters that correspond with each session plan. (Eyler et al., 2006, p. 70)

Eyler et al. (2006) offered great insight into how intervention programs can be used to encourage children to be more physically active. Activity preference needs to be considered when planning after-school activities, and enjoyment is an important factor in

initiating and maintaining physical activity (Eyler et al., 2006). In addition, "programs should assess barriers to after school activities (e.g., homework, TV) and address these barriers in an integrated curriculum encouraging exercise breaks and time management" (Eyler et al., 2006, p. 76).

Ransdell, Oakland, and Taylor (2003) designed, implemented and evaluated a mother-daughter physical activity program aimed at increasing physical activity, improving health-related fitness, and positively affecting some of the psychological attitudes toward exercise behavior. The Daughters and Mothers Exercising Together Program (DAMET) is a research-based 12-week intervention program that offered a variety of fitness and lifetime activities and used focus groups for participant reflection. Constructs of the social-cognitive theory and researched examples of other fitness intervention programs provided the theoretical background for this project. "Participation in this program resulted in increased physical activity, improved fitness, and enhanced psychological and family relations between mothers and daughters" (Ransdell et al., 2003, p. 37). *Moving for Fun*, the fitness intervention used in this study will use similar construct with identified middle school students.

Research did not disclose any intervention program based on assessment of health-related fitness. In addition the literature review did not find any phenomenological studies associated with fitness interventions. This proposed study does both, using *FITNESSGRAM* data to identify students who lack fitness and phenomenological methods to learn how children who need to improve health-related fitness perceive participation in physical activity before and after participation in *Moving for Fun*.

SECTION 3:

METHODOLOGY

Introduction

The review of literature presented in section 2 focused on the role of physical activity and physical fitness on health, on developmental considerations of middle school students, on barriers that develop inhibiting physical activity in middle school students, and on motivation and after-school fitness intervention programs. From the review, it can be surmised that several reasons exist why middle school students become less active; for some, inactivity leads to unhealthy levels of physical fitness. Barriers to physical activity can be categorized by biological, psychological, social, intellectual, and environmental factors. Fitness intervention programs exist for many groups, but none were found that specifically addressed the needs of middle school students identified as lacking physical fitness.

Rationale for Phenomenology

There is a need to understand why more and more children are being affected by the physical, social and emotional consequences of inactivity. Many quantitative and some qualitative studies have been done to shed light on this problem, and few examined the problem from the standpoint of the children themselves. To understand the problem and to initiate a reverse in the current trends, those who are at the heart of the issue need to be studied. Research is needed to understand the perspectives and attitudes of children who choose inactivity. These perspectives can be used to plan activity programs that are more inviting and motivating, encouraging increases in physical activity in the population of children in need.

This study used phenomenological methods to gain an understanding of how middle school students identified as lacking physical fitness feel about participating in physical activity, before and after participating in an exclusive fitness intervention program, *Moving for Fun* (*MFF*).

> Adopting the phenomenological viewpoint lends itself perfectly to any study in which researchers are concerned with participant perspectives on their own life or environment, or their view of their own situation. The researcher's role is to gain a holistic overview of the context under study through a process of deep attentiveness, empathetic understanding, suspending their own preconceptions. (Bailey, 1997)

Phenomenology, as a research method, grew out of the philosophy of phenomenology which evolved from Edmund Husserl's work in the early 1900's. An essential aspect of phenomenology is the method of phenomenological reduction: "By reduction, the phenomenological inquirer seeks to determine the essence of the phenomenon" (Mostert, 2008, p. 3). This reduction has two aspects: *epoche,* or the isolation of the researcher's self-experience of the phenomena being studied to learn about the 'genuine', 'inner-experience' of the study subject; and *noetic* and *noematic* phenomenological description, or "the seizing and describing of the multiple "appearances" as appearance of their objective units (themes) and these units as units of component meanings (concepts) accruing to them each time in their appearances" (Husserl, 1927). This kind of thinking is the foundation of today's phenomenological research.

The defining characteristic of phenomenological research is its focus on describing a phenomenon from the perspectives of those who have experienced it. Every experience can be subject to such reflection (Husserl, 1927). Learning about the

experience of identified middle school students participating in physical activity is the phenomenon on which this study will focus. These introspections of identified middle school students toward participating in physical activity have not been explored.

Husserl wanted followers of phenomenology to use two forms of phenomenological reduction: philosophical or scientific (Camic, Rhodes, & Yardley, 2003). In philosophical phenomenology, all of the work is done by the by the philosopher who studies his or her own experiences. This study will use the scientific phenomenological approach.

> The scientific phenomenological method consists of obtaining concrete descriptions of experience events from the perspective of everyday life by participants, with an end result of a second-order description of the psychological essence or structure of the phenomenon by the scientific researcher. (Camic et al., 2003, p. 251)

This means that in this study the researcher will seek to understand the essence of participation in physical activities, before and after identified middle school students participate in *MFF*.

To study the phenomenon of participation in physical activity, an exclusive fitness-intervention physical activity program, *MFF* was used. Only those invited to join *MFF* were allowed to participate. *MFF* is an annual 7-week biweekly after-school fitness intervention program designed to help middle school students overcome common personal barriers that can affect participation in physical activity programs. *MFF* provides program participants with 4 hours of supplemental physical activity each week at the school they attend. The program is supervised by the researcher, and led by second-semester sophomore Physical Education Teacher Education (PETE) students through service learning associated with *Secondary Methods of Teaching Physical Education* (PE

342) as taught at a nearby university. The goal of *MFF* is to dissolve barriers that may inhibit middle school students from participating in physical activities and to encourage increased physical activity. PETE students intentionally plan activities that are interesting, enjoyable and fun for program participants.

In scientific phenomenological analysis "one first obtains descriptions of experiences from others, then one enters into a scientific phenomenological reduction while simultaneously adopting a psychological perspective, then one analyzes the raw data to come up with the essential structure of the experience" (Camic et al., 2003, p. 247). Initially, to establish a frame of reference for each study participant, the researcher investigated participants' perceptions and attitudes towards participation in physical activities, using individual open-ended interviews. After participating in *MFF*, each study participant participated in a second interview to understand the experience of participating in the program. Interview data was useful to understand the experience identified middle school students had participating in *MFF*.

When conducting this research, the researcher, a licensed K -12 health and physical educator and university teacher educator, bracketed her preconceived ideas about the phenomenon to 'hear' the perspectives each study participant has considering participation in physical activity (Creswell, 1998). The researcher used strategies suggested by the *Listening Guide,* a guide "designed to open a way to discovery when discovery hinges on coming to know the inner world of another person" (Camic et al., 2003, p. 157). The *Listening Guide* suggests using a series of sequential listenings to focus on various aspects of the study subject's responses: 'listening for the plot', listening for 'I poems', and 'listening for contrapuntal voices'. "The first two listenings are more

prescribed, the later listenings are shaped by the particular question the researcher brings to the interview" (Camic et al., 2003, p. 159). The researcher used the *Listening Guide* because the processes helped her bracket her biases by focusing on the story that was being told.

The researcher collected data from 8 middle school students, 4 males and 4 females, who participated in the 2008 *MFF* program. Using tools developed by the researcher, three data collections took place in this study. To establish the frame of reference held by each study participant regarding participating in physical activities, data was collected in open-ended digitally recorded pre-*MFF* interviews. During *MFF*, the researcher collected observation data using video-taped sessions as the children participated in *MFF* activities. After *MFF* ended, each study participant completed an open-ended digitally recorded post-*MFF* interview to learn how study participants felt about participating in this unique program, and the perspectives they have toward participating in physical activity programs in the future. All data was collected, transcribed, stored and secured by the researcher.

Context of the Study

Middle-Elementary School (MES), a PreK-8 school, is located in Vermont. The school serves 850 students, 98% of whom are identified as 'White, not Hispanic' (Greatschools, 2007). Seventeen percent of MES students are eligible for the free or reduced-price lunch program, and in 2005-2006, 9.3% were eligible for Special Education (Greatschools, 2007). K-8 students receive 60 to100 minutes of physical education each week; students in Grades 6, 7, and 8 receive 100 minutes of specialized health education each week. The health and physical education program is served by four

licensed full-time physical educators. The school has an active Coordinated School Health Program that is facilitated by school staff, administrators, and community members.

The MES campus has several maintained indoor and outdoor physical activity spaces that can be utilized in *MFF*. These spaces include one regulation gymnasium, two large multipurpose rooms, and several outdoor activity spaces, including two large playgrounds, a quarter-mile cinder track, two regulation soccer fields, a softball field, two baseball fields, four tennis courts, a skate park, a three-mile bike path and adjacent nature trails. The gymnasium is reserved for each *MFF* session, and other activity spaces are available when conditions allow. Equipment and supplies for most *MFF* program activities are provided by the MES physical education program; on occasion, the university provides equipment to allow new activities to be offered.

MFF 2008 activity sessions took place in four locations at MES. The main gymnasium was the primary activity area for *MFF* activities. This gym has a tiled floor, one regulation-size basketball court with six ceiling-hung basketball hoops, and bleachers that run the length of one side of the gym. At one end of the gymnasium, there is a stage and a door that leads to a hallway; at the opposite end of the gym, cafeteria tables are stored within the wall and there is a door that leads into the school's lobby. The side of the gym that the bleachers are on has two doors, one at each end, that lead to the outside. The inside side wall of the gym has doors that lead into boys and girls locker room spaces, the cafeteria, and the PE equipment room.

Other activity areas included the two multipurpose rooms and the school's playground. Weather and snow did not allow for the use of field spaces. The

multipurpose rooms are located on opposite side of the school on the first floor of the building. These rooms house Kindergarten to Grade 5 physical education classes throughout the day, including the first hour of *MFF*. Each room has two ceiling hung basketball hoops, rubber flooring, and access to a large playground on the backside of the school building. The playground is the length of the backside of the building and includes both grassy and blacktopped areas. At two locations on the blacktopped portion of the playground, there are painted sets of bases for base games such as kickball. The grassy areas of the playground have several activity centers for the students to play on as well as a small ice rink.

The researcher selected MES as a study site because an established professional relationship exists between the school's physical educators, administrators and students with the researcher and PETE students. The MES students are familiar with the PETE program, as the school also serves as a practicum field site for the university's course in elementary methods of teaching physical education (PE 341) taught the fall semester of each year. Each Fall, sophomore PETE students enrolled in PE 341 gain 42 hours of practicum experience over 12 weeks with MES health and physical educators, observing and assisting in K-8 classes.

MES physical educators, trained to use *FITNESSGRAM*, individually test the physical fitness of each student in Grades 3 through 8 twice a year, once in the fall and spring semester. *FITNESSGRAM* is a group of research-based physical fitness assessments developed for youth by experts at the Cooper Institute in Dallas, Texas (Corbin & Lindsay, 2005). This group of assessments evaluates *health-related fitness* and includes meeting acceptable measures of cardio-respiratory fitness, flexibility, muscular

strength, muscular endurance, and body mass index (BMI) (Corbin & Lindsay, 2005, p. 12).

After testing, physical educators load student assessment data into the *FITNESSGRAM* data-base and analyze each student's health-related fitness. In January each year, the MES mails *FITNESSGRAM* results to each student's parents/guardian(s). *FITNESSGRAM* results are used to identify eligible MES students for invitation to participate into the fitness intervention program, *MFF* (formerly the *After-school Fitness Club)*. Middle school students are eligible for invitation if they pass none or one of the six health-related *FITNESSGRAM* assessments: body composition (BMI), modified-pull ups, curl-ups, sit-and- reach, and trunk-lift, or the Pacer or mile-run.

University Moving for Fun Teacher Leaders

The Bachelor of Science in Physical Education at the University has about 50 majors, preparing students for immediate employment or graduate work in the areas of teaching, coaching, and/or working in health centers and recreation facilities. Students are provided the opportunity to fulfill state knowledge and performance competencies for licensure with an endorsement in Physical Education for Kindergarten to Grade 12. *MFF* provides University physical education students the opportunity to teach and lead early in their professional development through service learning. *MFF* 2008 was supported by 13 sophomore PE 342 students.

MES Supervision of Moving for Fun

In addition to University students, *MFF* is supported by several MES staff. A physical educator and the researcher work collaboratively to facilitate communications between the University and MES, to organize and manage the program, equipment needs,

and the *MFF* field trip. The MES school nurse collects program permission slips and communicates necessary student health issues to the researcher. A guidance counselor for the school is stipend to attend each *MFF* session. His role is to help supervise MES *MFF* participants and help manage those who have behavioral problems. He actively participates in most *MFF* activities modeling good participation as well. The health teacher at MES also volunteers her time afterschool to work with *MFF*. When MES hosts a university physical education student teacher, the student teacher helps with *MFF* too.

History of Moving for Fun

The MES study site administrators and physical education professionals have established a long-standing collaborative working relationship with the researcher who supports service learning in several University courses and MES programs. The MES school physical education staff has been tracking physical fitness in students Grades 3 to 8, using *FITNESSGRAM* since 2003. In the Spring of 2004, using 2003 FITNESSGRAM results, school physical educators started a fitness intervention program called the *After-School Fitness Club* (Barnard, Thygesen, & Joyal, 2005). Funding for the management and supervision of the intervention was provided by grants and the school's budget. After the Spring 2005 intervention, the grant funding that supported this program ended, and in the Fall of 2005, the MES physical education faculty approached the researcher soliciting support to continue the fitness intervention program.

Understanding the need for a program like the After-School Fitness Club, the researcher worked with the MES physical educators to design and implement the 2006 fitness intervention program. The researcher, who has studied and advocates for the use of service learning, worked closely with MES faculty to reestablish the After-School

Fitness Club as *Moving for Fun.* Collaboratively, the primary goal for *MFF* was determined; to increase physical activity in students identified to lack physical fitness while providing a safe, inclusive, and fun activity environment. It was established that the *MFF* program supervisor's role (the researcher) was to organize and facilitate *MFF* using University PETE students enrolled in PE 342 to plan, teach and lead *MFF* activities. MES physical educators would identify students in Grades 5, 6, 7, and 8 lacking physical fitness, seek and obtain financial support for one program supervisor, provide equipment for *MFF* sessions, and seek administrative permission and financial support for the *MFF* field trip.

MFF was established as a biweekly 7-week fitness intervention program for MES middle school students identified to lack physical fitness using University students to plan, teach, and lead *MFF* activities. This program included a day trip to the University during the MES spring break for participants to enjoy the facilities and equipment offered by the University. In 2006, the *MFF* program was successfully implemented and in 2007, the University successfully facilitated *MFF* a second time. MES and University staff and faculties now have a standing commitment to continue the *MFF* program.

The Role of the Researcher

The researcher fulfilled many roles in this study as documented in Appendix E, the researcher's Study Log. Prior to the study, the researcher obtained Walden University approval to conduct this research (IRB # 03-04-08-0309972) and secured a research grant from her home university to support the technological needs of this study. A Letter of Cooperation from the MES was also obtained to support this project.

The researcher was the primary facilitator and supervisor for the *MFF* program. This role had many facets, including securing program facilities and equipment, obtaining a list of program invitees with the MES physical educators, training PE 342 students to teach and lead the 2008 *MFF* program, and supervising all students and program activities. In June, 2007, program facilities were reserved at MES for *MFF* 2008, including the gymnasium, the dining room, and the tennis courts to insure availability.

In January, 2008, while *MFF* invitees are being identified by the MES physical educators using Spring and Fall *FITNESSGRAM* scores from 2007, the researcher prepared the *MFF* 2008 program invitations, parental permission slips, and activity interest surveys. In February, 2008, 67 *MFF* invitation packets were mailed by the school to invitees, with instructions to return permission slips and surveys to the MES school nurse, the day students returned from a 10-day winter break, March 6, 2008. MES administrators provided the researcher with printed address lists and labels, school envelopes, and mailing costs. A sample *MFF* invitation, permission slip, and activity survey form for *MFF* 2008 are found in Appendix A. To protect confidentiality, names were removed.

The researcher prepared PE 342 students to teach and lead the *MFF* program during the first 6 weeks of the Spring 2008 semester. Service learning philosophy and procedures were incorporated into the secondary methods of teaching physical education course (PE 342) and applied to the development of *MFF* program activities. The goals for *MFF* were shared with PE 342 students along with information about past *MFF* programs. Two weeks before the start of *MFF* 2008, PE 342 students were briefed on

program numbers and, based on *MFF* activity survey results, the activity interests of the *MFF* program participants. *MFF* 2008 began on March 18, 2008, with 13 PE 342 students teaching and leading 20 MES *MFF* participants. For the next 7-weeks, 10 minutes of each PE 342 class was spent discussing *MFF* needs and reflecting on session outcomes.

The researcher coordinated communications between PE 342 students and MES physical education teachers. Twenty-four hours prior to each *MFF* session, the PE 342 students scheduled to teach the next-day's *MFF* sessions submitted activity plans to the researcher, who in turn, communicated equipment needs to the MES physical educators via e-mail. MES physical educators collected the desired equipment and reserved it for program use. Equipment was supplied primarily by the MES physical education program, supplemented by the University when necessary. In addition, when MES teachers or administrators had feedback, questions or concerns, the researcher relayed this information to PE 342 students. For example, when the researcher was informed by the MES guidance counselor that a participant withdrew from the program, this information was relayed to PE 342 students by the researcher.

Study Participants

Potential participants in this study were MES students in Grades 5 through 8 identified by physical educators as passing '0' or '1' *FITNESSGRAM* assessments in five or more health-related fitness categories, using Spring and Fall 2007 *FITNESSGRAM* scores. Six *FITNESSGRAM* assessments were used to identify program participants; body composition (BMI), modified-pull ups, curl-ups, sit-and-reach, and trunk-lift, and the Pacer or mile-run test.

FITNESSGRAM assessment data was collected, entered, and analyzed using the *FITNESSGRAM 2007* program by two MES physical educators who teach students in Grades 5, 6, 7, and 8. Once fitness data was analyzed, a study participant invitation list was developed for the 2008 *MFF* program. Late in February, 2008, 67 *MFF* invitations were mailed and 20 students acknowledged the invitation, obtaining parental permission to become program participants. This was an ideal number, considering the available facilities and activity planning.

Permission to conduct this study was obtained on March 4, 2008, 12 days before *MFF* 2008 began. To obtain study participants, the researcher had a University colleague randomly select 8 student names, 4 males and 4 females, from the pool of 20 *MFF* participants. To accelerate the process of informing and collecting study assent and consent forms, each study participant was contacted by the researcher by telephone, and messages were left if no one was home. After 24 hours, one potential male study participant did not respond and new male name was randomly drawn and contacted. When the researcher obtained verbal commitment from the study participant and the parent/guardian to join the study, consent and assent forms were e-mailed, personally delivered, or exchanged using homeroom teachers and the school nurse. By March 8, 2008, the study participant list was successfully filled and pre-*MFF* interviews were scheduled for the following week.

Data Collection

To learn the perceptions identified middle school students have, students who lack physical fitness, about participating in physical activities three phases of data collection took place. The researcher developed the instruments used in each phase of data

collection with the support of her doctoral committee. First pre-*MFF* interviews were conducted to establish a frame of reference of the perceptions and attitudes each study participant had towards participating in physical activities before *MFF*. Next, study participants were observed several times as they participated in *MFF* activity sessions. Observations were conducted to learn how each study participant participated in various physical activities, broadening the researcher's understanding of each individual. Last, post-*MFF* interviews were conducted to learn the perceptions of study participant's after their *MFF* experience. Combined, these data collections provided the information needed to answer the research question, "How do identified middle school students perceive themselves participating in physical activity before and after participating in an exclusive fitness intervention program, *Moving for Fun*?"

Pre-Moving for Fun Interviews

March 12, 13, and14, 2008 the researcher conducted eight open-ended individual pre-*MFF* interviews, guided by seven pre-*MFF* prompts and probes. The prompts and probes solicited responses pertaining to a study participant's use of 'free time', their experiences participating in physical activity in various settings, their activity preferences, their personal knowledge of physical fitness and related concepts, and reasons why the study participant joined *MFF*. Pre-*MFF* prompts and probes are found in Appendix B.

Pre-*MFF* interviews, which were digitally recorded using an Olympus WS-321M, took place at MES in a private interview area. Before each interview started, the researcher met the study participant at the beginning of their regularly scheduled physical education class, and walked them to the interview area, a conference room or a

principal's office. After the study participant reviewed a printed copy of the pre-*MFF* interview prompts and probes, the interview began. Interviews varied in length, ranging from 8 minutes and 55 seconds to 17 minutes and 40 seconds. The researcher's study log, Appendix E, contains the dates, time, and length of each pre-*MFF* interview.

Pre-*MFF* interviews were transcribed within 1 week to allow the researcher an opportunity to begin data analysis. To ensure transcriptions were accurate, before pre-*MFF* data analysis began each study participant member-checked their pre-*MFF* interview transcripts for accuracy. To protect the identity of study participants and their responses, the researcher coded each study participant's data responses as male (M) or female (F); with the numbers 1, 2, 3, and 4. These codes referenced study subject identity for the remainder of the study. A sample interview transcription can be found in Appendix F.

On March 18, 2008, *MFF* began. After the seventh session of *MFF*, on April 9, 2008, one study participant, Male 2 (M2), withdrew from the study and the *MFF* program. A detailed account of M2's withdraw is found in the researcher's study log, Appendix E. Data collected on M2 has been included in this study up until the day he withdrew.

Observations

During the 7 weeks of *MFF* 2008, the researcher continued data collection, video-taping several *MFF* activity sessions. Nine *MFF* sessions were video-taped and eight activity sessions were used to collect observation data on each study participant. Most study participants were observed three times as they participated in various *MFF*

activities. The researcher observed study participants F1, F2, F3, F4, M1, M3, and M4, three times and M2 two times, as they participated in *MFF* activities.

Video-taped sessions were analyzed using the *Moving for Fun 2008 Observation Assessment* tool. This tool assessed each study participant's level of 'engagement' in the activity and behaviors indicating if the participant 'enjoyed' or was 'displeased' with the activity. The criteria defining engagement included actively listening to activity instruction, participating in the activity without reservation, being cooperative during participation, and showing signs of enjoyment during the activity. If a study participant displayed the above four criteria, their participation was assessed as a '3'; three of the four criteria, a '2'; two of the four criteria, a '1'; and, one of the four criteria, a '0'.

To assess enjoyment and fun of participation in an activity, a list of 16 behaviors was compiled. Behaviors indicating a study participant was having fun and enjoyed the activity (such as smiling, showing effort in participation, talking with peers, assisting others, taking risks, or showing good sportsmanship) were recorded. To assess displeasure with an activity, a list of 16 behaviors indicating displeasure was developed. Behaviors indicating a study participant was not enjoying the activity and was experiencing displeasure (such as apathy, lack of effort, refusing to participate, negative verbal comments, disregarding games rules, or showing poor sportsmanship) were recorded on the observation form. For a complete list of behaviors indicating 'enjoyment and fun' or 'displeasure' experiencing an activity, see the *Moving for Fun 2008 Observation Assessment* tool found in Appendix C.

To assess study participant's engagement, pleasure or displeasure as they participated in *MFF* activities, the researcher watched each video-taped session three

times. During the first viewing of the tape, the researcher watched study participants as they played without recording any observation data. During the second viewing the session, the researcher recorded observation data on each study participant, stopping and reviewing the tape several times to ensure behaviors were accurately documented. During third viewing of the observed session, the researcher confirmed the data collected on each study participant.

After each session of *MFF*, the researcher and PE 342 students wrote reflections. The researcher recorded session reflections in her study log, which is found in Appendix D. PE 342 students who planned, taught, and lead session activities, reflected on their teaching experience and student responses to their activity in their *PE 342 Moving for Fun Leadership Journal*. A sample journal entry can be found in Appendix G.

Post-Moving for Fun Interviews

Seven post-*MFF* interviews were conducted May 7 to 12, 2008, guided by seven post-*MFF* prompts and probes which allowed study participants the opportunity to personally reflect on their experiences participating in *MFF* 2008. The post-*MFF* prompts and probes solicited responses pertaining to the study participant's experience participating in the *MFF* program, personal learning that occurred during *MFF*, personal changes that occurred as a result of participating in *MFF* activities, and feelings towards participation other activity programs. Post-*MFF* interview prompts and probes can be found in Appendix D.

Interviews, which were digitally recorded, took place at MES in the conference room or private office spaces. As in the pre-*MFF* interviews, before each interview started, the researcher met the study participant at the beginning of their regularly

scheduled physical education class, and walked them to the interview area. After the study participant reviewed a printed copy of the post-*MFF* prompts and probes, the interview began. Post-*MFF* interviews varied in length, ranging from 11 minutes and 12 seconds to 17 minutes and 15 seconds. The researcher's study log, Appendix E, contains the dates, time, and length of each post-*MFF* interview.

All post-*MFF* interviews were transcribed by May 20, 2008. To ensure transcriptions were accurate, before post-*MFF* interview data analysis began, study participant's member-checked their post-*MFF* interview transcripts for accuracy. A sample post-*MFF* interview transcript can be found in Appendix H.

Data Analysis

The data analysis process was ongoing throughout this study. Data analysis involved working with three data sets, pre- and post-interview data and observations. Data analysis for pre- and post-interview data collection was two-phased; data were analyzed using traditional methods of qualitative data analysis supported by a qualitative analysis program, NVivo7. The process developed to assess video-taped observations has already been discussed.

To ensure interview data analysis was thorough, two methods of phenomenological analysis were used to isolate themes and to reveal underlying concepts related to the proposed research question. Initially, the researcher used traditional methods of phenomenological analysis to code and to analyze pre- and post-*MFF* data. The researcher chose to start analysis this way so she could 'feel' the process of phenomenological analysis.

Using methodology presented by Creswell (1998) and Rubin and Rubin (2005), and *Listening Guide* strategies, the researcher read through the data several times, highlighted emerging themes and associated concepts, reduced them, and pieced them together a collage of responses that could answer each part of the research question. According to Creswell (1998) phenomenological data analysis proceeds through the methodology of reduction, analyzing specific statements and themes, and searching for possible meanings. Rubin and Rubin (2005) state phenomenological data analysis involves "systematically examining data by concepts, themes and topical markers, sorting them into appropriate groups, comparing them, and looking for patterns and connections" (p. 224). These reduction methods started the analysis of data.

The second method of data analysis was a software program, NVivo 7. NVivo7 is designed to isolate themes in large quantities of data using multiple screening processes that can set and reset parameters of analysis, allowing the researcher to examine relationships between data sets. Pre- and post-*MFF* interview transcripts were imported into the NVivo7 program, and data was screened to identify themes, which in NVivo7 are called *free nodes.* Next, *free nodes* were sorted and connected to new nodes forming a branching system of *tree nodes* that reflected the structure of the data (Bazeley, 2007). NVivo 7 allowed the researcher to use program tools to classify, sort, and arrange information so relationships could be revealed. NVivo7 accelerated the analysis of information and added depth to the researcher's initial exploration of the data allowing deeper analysis of interview responses.

The data analysis process used to evaluate data collected in video-taped observations involved the use of three resources. First, as previously mentioned, the

researcher viewed video-taped observations three times to ensure observed behaviors were recorded accurately. In addition, dated notes from the researcher's study log and reflections that each PE 342 students recorded in their *Moving for Fun Leadership Journal* reflections regarding teaching and leading *MFF* activities were used to add depth to observation data collections. The use of these three data sources triangulated the analysis of observation data. The results of this analytical process will be reported in section 4.

Summary

The goal of this study was to learn how identified middle school students lacking physical fitness perceive their participation in physical activities before and after participating in an exclusive fitness intervention program, *Moving for Fun.* To see and hear study subjects' responses to participation in physical activity data were collected in three phases. The first phase of data collection and analysis examined the attitudes and perceptions that identified middle school students have toward participating in physical activity before *MFF*. The second phase observed study subjects participating in *MFF* activities during three program sessions. The third phase of data collection and analysis considered the experience study subjects had participating in the *MFF* program. The results of these analyses will be presented in section 4.

SECTION 4:

PRESENTATION AND ANALYSIS OF DATA

Introduction

The purpose of this study was to answer the research question: How do identified middle school students perceive themselves participating in physical activity before and after participating in an exclusive fitness intervention program, *Moving for Fun (MFF)*? This study is significant because few if any studies have specifically examined the point of view of middle school students regarded as lacking physical fitness and their perspectives towards participating in physical activities. These perspectives have developed over time and change as the child matures. *MFF* is an exclusive fitness intervention program designed to remove barriers that typically deter participation in physical activity in middle school-aged students. The goal of this program is two-fold; to create a safe and enjoyable physical activity experiences for identified students and to motivate each participant to become more active.

This chapter presents the results of a phenomenological investigation of the perspectives of eight identified middle school students before and after participating in the fitness intervention, *MFF*. Using procedures described in section 3, data used to formulate these results have been triangulated to assure accuracy. All interview transcriptions were member-checked, and the researcher's study log and observation results were reviewed for accuracy using video-recordings of *MFF* sessions.

Three data sets were used to build several stories that address the research question: pre- and post-*MFF* interviews and observations during *MFF*. First, each

individual had a personal story about their experiences participating in physical activity before joining *MFF*. Next, a story developed during the *MFF* experience that considered the *MFF* experience of all participants as well as each study subject. After *MFF*, each study subject had a second story to tell, a story about their personal experience in *MFF*.

Initially 8 students and their parents consented to be part of this study, 4 females and 4 males, in Grades 5 through 8. Part way through the *MFF* program, one male study participant, Male 2 (M2), who has Asperger's Syndrome, withdrew from the program. He was unable to handle the demands and stimulation of *MFF* and developed a negative attitude, which made data collection in this study impractical. For this reason, the results of this study are based on eight pre-*MFF* interviews, seven post-*MFF* interviews, and results of three observations for 7 study participants, and two from Male 2.

Pre-*Moving for Fun* Study Participant Profiles

Four females, ranging from 10 to12 years of age and being in Grades 5 or 6, participated in this study. Four males, ranging from 11to13 years of age and being in Grades 6 or 7, participated in this study. Each student was assigned a number based on gender. For example, "Female 1" was used to identify the first drawn female participant, followed by "Female 2" for the second drawn, "Female 3" the third, and "Female 4" the last. Similarly, "Male 1" was used to identify the first drawn male participant, followed by "Male 2", "Male 3", and "Male 4". The following profiles introduce each of the 8 individuals who volunteered to be part of this study. These profiles were developed using data provided by MES physical educators and data collected in the pre-*MFF* interviews.

Female 1

At the time of the study Female 1(F1) was 11 years old, in sixth grade, and this was the second year she participated in *MFF*. She is very tall for her age (about 6 feet) and is considered overweight. F1 passed two of the six *FITNESSGRAM* assessments given in the spring and fall of 2007.

At school, F1 did not like physical education because "everyone in my class plays a sport, except for me… I don't fit in." In physical education F1 would like to fit in better with her skilled peers when she plays with them, but she feels inadequate and does not like competitive activities. When asked about her feelings towards participating in physical education she said

> I don't like running. I am sort of like a wimp and I don't like getting in people's faces, trying to get something from them. I don't really fit in when we play soccer and basketball, and other stuff because I don't play it and I don't know the game as well as the other people.

During school recess, F1 chooses to "hang out" and talk with her friends.

At home F1 likes to spend her free time on the computer and watching TV. She does not like doing any outdoor activities in the winter because she does like the cold. On occasion, in the summer she will go outside and play football with her brother, but other than that she does not go outside. When she chooses to be physically active she prefers being alone. F1 states

> I like dribbling a basketball. I don't like working with other people, which is bad, but I don't like group stuff because most of the time I don't know what to do because I am not a good listener. So, I like to do stuff by myself.

F1 is not involved in any community physical activity programs.

Female 2

Female 2 (F2) was 11 years old at the time of the study, in fifth grade and this was her first year participating in *MFF*. She is short in stature for her age and is slightly overweight and could be described as "chubby". She passed one of six *FITNESSGRAM* assessments in the spring and fall of 2007. In her pre-*MFF* interview F2 expressed her feelings about participating in physical activities as

> You get to do be on your feet and be active. It is really fun because you can play with your friends at the same time and be healthy and not have to worry about sitting around. When I sit around, it is no fun, when you're just sitting around like reading, that's when I like to get up and play with my friends a lot.

At school, F2 enjoys physical education, except for snowshoeing; she has a problem keeping the snow shoes on her feet. During recess, F2 likes to play tag, run around, and sometimes plays kickball. In the community, F2 has played soccer and is playing softball. At home, she prefers to be outside playing and does not like sitting around. F2 has a "huge backyard" and several friends around and spends her time playing a variety of sport and leisure physical activities. She especially likes hockey. When forced to be inside, she likes to read, draw, do yoga, practice gymnastic moves, and play Dance-Dance Revolution, an interactive video-game.

Female 3

Female 3 (F3) was 10 years old at the time of the study, in fifth grade and this was her first year participating in *MFF*. She is short in stature, has a normal body weight. F3 passed two of the six *FITNESSGRAM* assessments given in the spring and fall of 2007.

F3 enjoys participating in physical activities stating “When I participate in physical activities, I don’t feel scared; I love sports and so I feel ready to go.” At school, F3 enjoys participating in physical education except for snowshoeing. During recess, she likes to play kickball. F3 is involved in several community basketball and soccer programs, and softball. She participates in these activities several times a week and on the weekends. At home, during her free time, F3 likes to play guitar hero and video games and practices her sports.

Female 4

At the time of the study, Female 4 (F4) was 11 years old, in sixth grade and this was her first year participating in *MFF*. She has average height and is overweight. F4 passed zero of the six *FITNESSGRAM* assessments given in the spring and fall of 2007.

At school, F4 likes participating in physical education. For her, the kinds of activities “don’t matter” and participating in class feels “good”. During recess, she likes to “hang out and talk with her friends.” F4 participates in a community dance class (hip-hop) and plays softball. When she is at home, she likes playing video games and going on the computer, hanging out with her friends, and playing outside. Outside, they play basketball or ride around on bikes and scooters.

Male 1

Male 1 (M1) was 13 years old at the time of the study, in seventh grade, and this was his second year participating in *MFF*. He is a tall lean young man. M1 passed one of the six *FITNESSGRAM* assessments given in the spring and fall of 2007.

At school, M1 enjoys physical education stating “Participating in physical activities is not all that hard it is just that I get tired easily. In physical education I mainly

focus on team sports; I don't really like self-focus (individual) sports." During recess, M1 likes to play tag with his friends. In the community, M1 plays basketball in the town's recreation program. At home, he likes to play with his dogs, play video games or go outside. Outside in the winter, M1 likes to go sliding and playing in the snow; in the warmer months, he likes to climb trees, play in his tree house, build, swim, and rides bikes with his friend.

Male 2

Male 2 (M2) was 12 years old when the study began, in seventh grade, and was participating in *MFF* for the first time. He is tall for his age, and "stocky". M2 recently moved to the area and this is his second semester at MES. He passed one of the six *FITNESSGRAM* assessments given in the spring and fall of 2007.

M2 has Asperger's Syndrome, a fact learned after the pre-MFF interview. During the pre-*MFF* interview, M2 seemed nervous and jittery, avoided eye contact, and responded to prompts and probes with short sentences or one word answers. The guidance counselor who has worked with the *MFF* program for 2 years asked about M2's interview; in this conversation M2's disability was disclosed to the researcher. The guidance counselor explained he had had conversations with M2's mother about M2 participating in *MFF* and the study, as the researcher had, and she wanted M2 to participate in both *MFF* and the study. Considering M2's Asperger's Syndrome, the guidance counselor and M2's mother felt M2 could benefit from the *MFF* experience.

Asperger's Syndrome (AS) is part of a group of conditions called autism spectrum disorders and is considered "high-functioning" autism. Compared to an autistic child, a child with AS typically has normal to advanced language and intellectual development

and makes more of an effort to make friends and engage in activities with others. (WebMD, 2008)) Children with AS may

a) Not pick up on social cues and lack inborn social skills, such as being able to read others' body language, start or maintain a conversation, and take turns talking.
b) Dislike any changes in routines.
c) Appear to lack empathy.
d) Be unable to recognize subtle differences in speech tone, pitch, and accent that alter the meaning of others' speech.
e) Have a formal style of speaking that is advanced for his or her age
f) Avoid eye contact.
g) Have unusual facial expressions or postures.
h) Be preoccupied with only one or few interests, which he or she may be very knowledgeable about.
i) Talk a lot, usually about a favorite subject. One-sided conversations are common. Internal thoughts are often verbalized.
j) Have delayed motor development
k) Have heightened sensitivity and become over-stimulated by loud noises, lights, or strong tastes or textures. (WebMD, 2008)

M2's AS symptoms were typical. In his disclosure, the guidance counselor indicated that M2 could display poor communication skills, might have a problem coping with change, and could be apathetic towards others. Rarely, M2 made direct eye contact with those he spoke to.

At school, M2 general likes participating in physical education saying "it is fine", but he does not like the unit on dancing stating "I hate dancing!" During recess, M2 hangs out with his friends and plays tag. M2 plays in the community football program and has played baseball in the past. At home, he watches TV; plays video games, and goes outside to play toss-catch alone.

Male 3

Male 3 (M3) was 12 years old at the time of the study, in seventh grade and was participating in *MFF* for the first time. M3 is average in height and slightly overweight.

M3 passed one of the six *FITNESSGRAM* assessments given in the spring and fall of 2007.

At school, whether M4 likes participating in physical education or not "depends on what we do; some things are easier than others." For him, "badminton and cupstacking are easy." He does not like basketball or soccer, unless it is "freestyle", like "soccer where they do all the tricks with the soccer ball." During recess at school, M2 likes to play football with his friends.

M3 is involved in biweekly karate classes at a local martial arts studio and participates in a church youth group once a week that includes games and physical activities. At home M2 likes to watch TV and play with his neighborhood friends. He has a trampoline in his backyard and goes sledding a lot in the winter. M4 also snowboards at a local ski resort five or six times during the winter.

Male 4

At the time of the study, Male 4 (M4) was 12 years old, in sixth grade and participating in *MFF* for the second time. M4 is considered short for his age and is overweight. M4 passed one of the six *FITNESSGRAM* assessments given in the spring and fall of 2007.

At school, M4 especially likes physical education in the beginning of the year because "that is when they do the fun stuff." He also likes participating in the badminton, basketball, and the biking unit. During recess, M4 usually plays kickball or basketball. At home he likes to watch TV, play video games, and swim, ride his bike and skateboard. In the winter, M4 also snowmobiles and ice fishes. M4 is involved in the community baseball program and has been for 8 years.

Pre-*Moving for Fun* Interview Results

Pre-*MFF* interviews established a frame of reference considering each participant's view of participating in physical activities using seven prompts and probes found in Appendix B such as "How do you like to spend your free time?", "What is it like for you to participate in physical activities?", "What can you tell me about activities that you like or dislike participating in?", or to you, "What is physical fitness?". Interview data was analyzed using questions posed in interview prompts, indigenous codes, and theoretical approaches. Using NVivo7, indigenous codes were derived directly from words of the participants. Theoretical codes were derived considering research in the review of literature. These codes were sorted into hierarchical themes, with subcategories that identified associated concepts. Four broad themes emerged from this analysis: two that theoretically are associated with the review of literature, *incentives* and *barriers* to physical activity; and two themes that were associated with interview prompts, *perceptions of physical fitness* and *reasons to join MFF*.

Each theme had several significant key concepts, some that could be interrelated. Table 1 provides a visual display of the four themes and corresponding key concepts. The narrative that follows defines each theme, associated concepts and interrelationships, and uses individual responses to reveal the perceptions study participants had considering participating in physical activity before *MFF*.

Table 1

Pre-*Moving for Fun* Physical Activity Perspectives

Theme	Concept
Incentives to engage in physical activity	Like the activity
	To have fun
	Opportunity to socialize
	Personal challenges
Barrier to engage in physical activity	Dislike the activity
	Perceptions of inadequacy
	Fear of being injured
	Competitiveness
Perceptions of physical fitness	Informed
	Misinformed
	Perception of personal fitness
Reasons to join *MFF*	Anticipation of *MFF* activities
	Past experience
	Opportunity to socialize
	To improve physical fitness
	To relieve boredom

Incentives of Physical Activity

Based on past experiences in physical activities, the first theme identified to affect participation was "incentives to engage in physical activity", or positive motivational influences. This theme correlates to *facilitators* of physical activity reported in the literature. In the past, the following incentives shaped study participant's desire to engage in physical activity: they "liked the activity" itself, they "had fun" participating in the activity, they had an "opportunity to socialize" participating in physical activities, and they like being "challenged" participating in an activity. One reported incentive was associated with previously reported in the literature; if a study subject "had fun" in their initial experience participating in an activity, most likely they would have a positive attitude towards participating in that activity a second time.

Liked the Activity

All study participants said they liked participating in some kind of physical activities. The type of activities they like varied as well as who they participated with, or where they did the activity. Some reported they enjoyed team sports (such as basketball, soccer, football, and hockey); others, individual sports (such as tennis, badminton, gymnastics, and karate); some reported they enjoyed participating in leisure activities (such as swimming, bicycling, fishing, skateboarding, and snowmobiling). Study participants also reported they liked doing activities with certain people: classmates, teammates, friends, family members, or alone. Table 2 summarizes the preferred physical activities of each study participant and with whom or where these activities took place. Study participants noted several reasons why they liked participating in these activities;

reasons that form the remaining discussion about study subjects' personal incentives to be physical active.

Table 2

Preferred Activities before *Moving for Fun*

Study participant	Preferred Activity	Where and with whom
Female 1	Football	With step-brothers
	Basketball	Alone
	Volleyball, tennis, gymnastics	Physical education
	Kickball	At home with neighbors
Female 2	Gymnastics, soccer	Physical education class
	Hockey, lacrosse	At home with friends and family
	Dance-dance revolution	At home with friends/cousins
	Yoga	At home with friends or mother
	Playing in snow	At home with friends
Female 3	Basketball and Soccer	A home with parents
		Community programs
Female 4	Soccer and basketball	At home with friends or dad
	Dance and softball	Community programs
Male 1	Bicycling	At home with a friend
	Basketball	Community program
	Sledding, climbing trees, building	At home

Table continues

Study participant	Preferred activity	Where and with whom
Male 2	Football and baseball	Community program
	Strength activities	Physical education
Male 3	Karate	Community program
	Snowboarding	At resort; no lessons
	Tchoukball and cupstacking	Physical education
	Cupstacking	At home
Male 4	Skateboarding and bicycling	At home
	Bicycling, basketball, badminton	Physical education
	Dodgeball	At home with cousins
	Ice fishing and snowmobiling	At home with family

Have Fun

All study participants indicated that one incentive to participate in physical activity was the anticipation of "having fun" while doing that activity. This incentive has also been reported on in the literature. Based on previous experiences, if a study participant "had fun" participating in an activity, they would want to repeat that activity experience. Activities were labeled fun if one had friends to play with, if one was active, if one experienced success, or if the activity had rules that supported combative play.

Study participants had different opinions considering having fun participating in physical activities. According to F1 and F2 who both talked about tennis, you don't have

to be good at an activity to enjoy it. F1 stated “I like playing tennis and kickball, but I am not good at these activities.” F2 stated “I like playing tennis, but I am not good at it.” Despite their lack of skill, F1 and F2 reported enjoying playing tennis. F4 and M2 however felt having fun participating in physical activity was supported by experiences of being successful in that activity. For them, success was scoring in a game or winning. F4 stated playing soccer and basketball were fun because “you get to make baskets and goals, you can win the game.” M2 also associated success with having fun when he spoke about playing football. “If you win enough games, you can go to the playoffs. If you win those games, you go to the big ones!”

F2, F4 and M3 felt that participating in physical activities was fun simply because they enjoy moving and being active.F2 felt playing hockey, soccer, or tag was fun because she got to be on her feet and be active. “When I sit around it is no fun; that is when I like to get up and play with my friends.” F4 said that playing soccer and basketball were fun for her because “you get to run around.” M3 felt that activities are more fun when “there’s lots of moving around.”

Social interaction with peers was found to be an important incentive for study participants considering participating in physical activity. F2, F4, and M1 agreed that physical activities were more fun when they had friends to play with. F2 stated she had fun participating in various activities because “you get to be with your friends (when you play) and at the same time be healthy, and not have to worry about sitting around. Sitting around is no fun.” F4 associated having fun being active with her friends because “you get to hang out and do what your friends do, and at the same time, play games and practice.” M1stated he liked doing activities with his friends saying “They (my friends)

make me happy. I'm just with the people I care about. Otherwise, if I wasn't with them I would not be happy at all. I would be more of a grouch if I wasn't with my friends".

M2 and M3 stated they enjoyed participating in activities that are combative by nature. M2 likes playing football because "it is an aggressive sport…you get to hit people. You don't get in trouble unless you do something really bad to another player; it is fun." M3 stated he liked to participate in karate and other activities where he had to defend himself and play aggressively to succeed. He stated:

> In martial arts, you have to stand up (for yourself) and not like die or get hurt. In dodgeball, you run around and throw balls at people. In rugby you basically have to get the ball to the other side without getting killed. There is this game called "garbage ball" that we play where basically the only rules are no biting and no clawing. The goal is to get your ball into the other team's garbage can. It is all about trying not to get killed and your team getting more points.

Opportunity to Socialize with Others

An incentive to participate in physical activity for study participants was the opportunity to be with friends and family. Interacting with others made participation in physical activities more fun. As previously stated F2, F4, and M1 thought physical activities were fun when they could be with their friends. F1, F2, and F3 also spoke about doing physical activity with family members. In the summer, F1 likes to "play football with her step brother." F2 likes doing yoga with her mother and playing Dance-Dance revolution (an interactive dance video-game) with her cousins and friends.

> My mom has yoga tapes and uses them, so she is teaching me. It is really fun, you just have to get used to it because it is hard to do the moves. Me and my mom do it almost every night for about an hour. I also like doing Dance-Dance Revolution with my friends and cousins. I practice almost every day. We play like five games and they get mad at me because I win.

F3 likes to practice her sports at home on the weekends with one of her parents. When asked about who she played sports with at home she replied, “Usually my mom, she broke her ankle though and I have a baby sister and brother, so now I usually do it with my dad.”

Personal Challenges in Activity

The last reported incentive to engage in physical activity was the challenge presented participating in an activity. For F3, M1, M3, and M4 this feeling stimulated participation. F3 likes participating in basketball and soccer because they have different challenges. “In basketball you have to dribble with your hands and in soccer, you have to dribble with your feet. In soccer if you touch the ball with your hands you get a penalty.” She particularly likes basketball because “it is a fast sport… I am small so I have to go pretty fast when I play.”

M1and M4 said they liked the challenge of going fast when they ride their bikes. M1 spoke about racing on his bicycle saying “In the summer, I love racing on my bike with my friend. He is physically impaired, but he can ride his bike. We love racing on our bikes.” M4 talked about riding his bike at his house saying “There is loop around our house that has a whole bunch of downhill; I can go fast!” For each of these study participants, the challenge of participation arouses their interest and desire to participate in the activity.

Similarly, M3 stated he liked going snowboarding because he gets an “adrenaline rush when he goes really fast.” He also enjoyed the challenge of cupstacking for speed. M3 learned how to cupstack at school and outside of school, practices cupstacking at home. He follows the sport on the internet and has become quite proficient stating “From

the internet, I am 0.3 seconds away from the world record". M3 also spoke about karate and the challenges he faces to improve his performance and earn higher belts.

> In karate, you get to earn different things and work your way up. You get fit because there are a lot of push-ups, sit-ups, and crunches that you do. We also do different tests. I am not sure what they are called, some kind of push up, a push up where you push-off and clap your hands three times. It's really hard! I can clap two times.

Barriers to Engage in Physical Activities

Based on past experiences in physical activities, the second theme identified to affect participation was "barriers to engage in physical activities", or those things that make participation difficult for study participants. The following barriers emerged from the pre-MFF interview data analysis. Study participants reported their participation in physical activities was negatively influenced if they "disliked the physical activity", if they experienced "feelings of inadequacy" participating in activities, if they had a "fear of being injured" participating in an activity, or the "competitiveness" of an activity.

Disliked the Physical Activity

All study participants reported that a barrier to participating in some physical activities was that they did not like the activity. The type of activities study participants reported they disliked varied along with the reasons why they disliked participating in the activity. Activities that participants did not like to participate in fit into several categories: seasonal activities (such as winter, spring, summer or fall activities), individual activities, team activities, endurance activities (those that involved a lot of running), and activities that were competitive by nature.

F1 does not like soccer or basketball, two team activities because she does not like competing with others. She also does not like doing winter activities because it is

cold outside. F2 and F3 do not like snowshoeing in physical education; F2 feels it is boring and F3 has problems keeping the snow shoes on. M1 does not like doing certain sport activities because you can get hurt. Table 3 summarizes each study subject's response to the types of activities they did not like to participate in and reasons why they did not like the activity.

Table 3

Non-preferred Physical Activities before *Moving for Fun*

Study subject	Disliked activity	Reason why
Female 1	Competitive activities	Don't like competing
	Outdoor winter activities	Don't like the cold
Female 2	Snowshoeing in P.E.	Equipment problems
Female 3	Snowshoeing in P.E.	Boring
Female 4	Hip-Hop Dance (Community)	Perception of inadequacy
Male 1	Football, baseball, wrestling, and lacrosse	Fear of injury
	Individual sport activities	Prefers team sports
Male 2	Dance in physical education	Social contact with girls
Male 3	Soccer, basketball, running, and swimming	Constant repetition of activity and boredom
Male 4	Activities a lot of running	Cannot run long

All study participants were probed to answer the question "what would make the activities you dislike better"? Study participant's responses were aligned with the characteristics of the physical activities they did not like. F1 thought basketball and soccer would be more fun "if we did not have to steal the ball and were not on teams." F2 felt snowshoeing would be more fun if "I could keep my snowshoes on and having more snow that sticks." For M1, lacrosse would be more fun if "you couldn't check with the stick" and football, if it was" two-hand touch" rather than tackle.

Feelings of Inadequacy

Three study participants suggested that a barrier to their participation in physical activities was their perception of inadequacy when they participated in certain physical activities. This lowered their self-confidence and deterred their desire to participate in the activity. They felt inadequate because physically or mentally they could not keep up with others. F1 stated:

> I don't really fit in when we play soccer, basketball, and other stuff. I don't play it (basketball or soccer) and I don't know the game as well as the other people. In my physical education class, everyone plays a sport except for me.

She also stated "I don't like group stuff because most of the time because I don't know what to do; I am not a good listener." F4 said when she attended hip-hop dance classes "we have to do stuff I can't really do it … like 'star-whizzers', you have to go on your hands, pushing yourself into the air, holding yourself with your arms." M4 stated that he did not like participating in activities that involved a lot of running. Physically, he reported he could not keep up with his peers saying "Usually the other kids can go farther …I stop and "pant out" or "pass out" or something."

F1, F4, and M4 each shared ways that activities they felt inadequate participating in could become better. F1 stated she would like individualized basketball activities; she prefers playing basketball alone, exclaiming she "likes to do stuff by myself." F4 felt hip-hop classes would be better if she could focus on "doing moves I really know" and if she could "put my own ideas into it." M4 thought activities that required a lot of running would be better if the were broken up. If in the mile-run he could "run for a quarter-mile, then walk another quarter-mile, and then run the last half-mile." He went on further to say he preferred playing football over soccer because "In football you run for maybe 10-12 seconds; once you get a first down, you stop, and huddle up." He felt soccer was harder because "you run the whole time (game)."

Fear of Being Injured

One study participant, M1, said he did not like to participate in certain physical activities because he feared getting injured. "I don't like to participate in football, or anything else I can get hurt in. In football you can tear a ligament or you can break a leg, something like that." For the same reasons, M1 did not want to participate in lacrosse or wrestling. For M1, "getting hurt is like living through the embodiment of heck." M1 felt football, lacrosse, and baseball would be better if:

> You didn't check with the lacrosse stick, or if football was two-hand touch. If, in baseball you could wear different padding, more than just the helmet if you were batting. When you stand there, they (the pitcher) can just throw a ball at you; you can get hurt.

Competitiveness

One study participant, F1, said she did not like to participate in some physical activities because they were too competitive. F1 said she did not like playing basketball

or soccer in physical education because "I am sort of a wimp; I don't like getting in other people's faces trying to get something from them." When asked what would make these activities better for her, she said "if we didn't have to steal the ball, and there weren't teams." For these reasons, F1 prefers to play basketball alone.

Perceptions of Physical Fitness

Based on past education and personal experience, a third theme, "perceptions of physical fitness" was identified. This theme evolved from pre-*MFF* interview responses for prompt 5, "To you, what is physical fitness?" and associated probes, "What can you tell me about the relationship between physical activity and physical fitness?" and "Tell me about your physical fitness". Responses from each study participant revealed their personal knowledge of physical fitness and their understanding of the role physical activity has in physical fitness.

Habits and attitudes towards physical activity and physical fitness develop during childhood and are influenced by education, societal beliefs and values, family and peer influences, and experiences. These factors shape the student perceptions of the role physical activity has in and their understanding of health-related physical fitness (Ward, Saunders, & Pate, 2007). Three categories of understanding emerged from study participant responses to prompts and probes concerning physical fitness. Study participants were "informed" or "misinformed", and had "accurate" or "inaccurate" perceptions of their own personal fitness. Assessment of student responses was based on knowing fundamental physical fitness and physical activity concepts found in sections 1 and 2 of this study.

"Informed" or *"Misinformed"*

Individual study subject responses showed that what subjects knew about physical fitness and the role physical activity has in fitness varied. No study participant was considered completely "informed" or "misinformed". A study participant's response could contain both correct and incorrect understandings. A response was considered "informed" if a majority of the response was correctly aligned with current literature and it showed some understanding of concepts of physical fitness. A response was considered "misinformed" if it did not align with current literature and/or it showed a lack of understanding of the concepts of physical fitness. Results showed that 3 study participants were "informed" and 5 "misinformed".

"Accurate" or "Inaccurate"

All study participants were invited to join *MFF* because FITNESSGRAM results identified them as lacking physical fitness in one or more categories of health-related fitness. The *MFF* invitation, found in Appendix A, states "students tested in the spring 2007 and fall of 2007 who were unable to meet any or one of the six standards (on either test date) measured by FITNESSGRAM are being invited to attend *MFF."* Despite being informed of their personal level of physical fitness, half of the study participants had "inaccurate" perceptions of their personal fitness and the other half had "accurate" perceptions of their personal fitness. The results reveal that most study participants have only a vague idea what physical fitness is and the role physical activity plays in being physical fit.

Female 1. F1's responses showed that she considers athletes physically fit. For her, physical fitness was "when you play a sport on a team and you are part of that almost

every day, training and stuff." She did understand that to be fit, you need to be active, showing she was "informed". When asked about the relationship between physical activity and physical fitness, she said "they go hand in hand because you have to be physically active to have physical fitness." When asked to talk about her fitness she knew she lacked fitness saying "I am not really fit; I don't like doing stuff, I don't know how to do it."

Female 2. F2's responses showed that she does not understand what physical fitness is, although she knows being active is part of it. She considered "misinformed". Her response to the question "to you, what is physical fitness?" showed she knew being active is associated with fitness stating "I think it's probably getting kids out to exercise, maybe. Like getting them to run around and learn to play basketball or do fun things and while ending up on your feet and exercising." She could not distinguish the difference between physical activity and physical fitness.

> Physical activity, you are still on your feet and with the other one, physical fitness; both ways. You can be up on your feet doing something you are not really sitting down. It will probably be having fun. Maybe physical fitness would have a little more physical in it. You might be doing handstand on the floor and cartwheels. On the other hand, in physical activity, you would probably be doing fun activities, but not like physical fitness.

When asked about her own physical fitness, F2 explained it as "probably getting up and being active (such as running, doing yoga, gymnastics, or dancing) everyday."

Female 3. F3's responses were similar to F2's, indicating she is "misinformed". They show F3 does not understand what physical fitness is, but she thinks playing sports and being active is part of it. For her, physical fitness is "if you practice…if you have never done a sport and you are not skinny as you want to be, you can practice on that

sport and become slimmer." When F3 spoke about the relationship between physical activity and physical fitness, she said

> Physical activity is longer than physical fitness. We do physical fitness in PE. There is a limited time (class length) so you cannot do as much as you want. Like in basketball for physical activity (in the community), there is 24-minutes in a game and you might not have as much time for physical fitness in PE.

Here, F3 was relating time spent in an activity to being either physically active or physically fitness. The researcher probed F3 more so she would clarify her point of view by asking "what kind of activities do you do in physical fitness?" F3's response, "badminton, or practicing our swing in tennis, when it (PE) is outside, snowshoeing and basketball, all the sports" showed her lack of understanding. When F3 was asked about her physical fitness she stated "I think I am fit because I started sports when I was in third grade and I liked sports when I was younger. I think I am". Based on FITNESSGRAM results, this was not an accurate statement.

Female 4. F4's responses showed that she had some understanding of fitness concepts, but she is "misinformed". She did understand her fitness needed to improve. F4 does not understand the relationship between physical activity and physical fitness. For her physical fitness is "running around and getting exercise." Physical activity is when "you do like push-ups and pull-ups to strengthen your body." She went on to say "In physical fitness, you do the same but have a healthy diet." F4 was the only study participant to relate diet to physical fitness. When asked about her physical fitness, she accurately felt she was not fit because "I don't eat healthy. I don't run around that much or get fit that much". F4 did express that she wanted to change.

Male 1. M1's responses showed that he was "informed" about the concepts of physical fitness and his own physical fitness. He identified four concepts of physical fitness in his response: strength, flexibility, muscular endurance, and cardio-respiratory endurance. For him, physical fitness "is being self dependently strong. Physical means like strength, muscle strength, and stuff like stretching." Later in his response he said "being fit helps you in sports." In basketball, he said "you need strong forearms so you can pass further or if you need to chuck the ball into the basket." When asked about the relationship between physical activity and physical fitness, M1 said "physical activity is more like doing something, while physical fitness adds stretching and running to the activity." When asked about his own level of fitness he accurately stated "my physical fitness is not all that great. I can certainly get a whole lot stronger. My running is okay, although I would like to work on that more."

Male 2. M2's responses showed he was "informed" about physical fitness and that he understood concepts of fitness testing. For him, physical fitness meant "whatever gender you are, whatever age you are between, you meet the healthy goal; you are in shape." M2 differentiated physical activity and physical fitness be the types of activities your do. "Physical activities are fun. Physical fitness is like lifting weights and running on treadmills, stuff like that." When asked about his physical fitness, M2 said "it is fine; I like being me." These were his feelings.

Male 3. M3's responses showed he associated being physically active to being fit, he knew some benefits of exercise, but he did not know what physical fitness is, being "misinformed". When asked to define physical fitness he said "for one thing, it (physical fitness) of course keeps you fit. It helps you become stronger, you are able to do more

things, and you have more energy every day." M3 related physical activity to working out and physical fitness to lessons in karate. "Physical activity is basically boring trying to work out and stuff. But if you bring fun into it, like in karate where you earn different things and work your way up, you get fit." M3 said he did a lot of push-ups, sit-ups and crunches in karate. When M3 was asked to talk about his fitness he responded "it is probably a tiny bit above normal in strength. I cannot do over 70 push-ups; I can do a ton of sit-ups though, like a ton!" His response was focused on muscular strength and endurance, but did not include other aspects of physical fitness. M3 showed awareness of certain aspects of his fitness, but did not reflect on all the areas.

Male 4. M4's responses showed he does not understand the concepts of physical fitness, being considered "misinformed" but he understood he was not fit. He relates working out to being fit. His definition of physical fitness was "running, weight lifting or something; getting stronger." His response relating physical activity to physical fitness was vague and hard to understand. He stated

> physical activity, you have to do it; well you don't have to, but you can say 'I can get a touchdown'. In physical fitness, you have to do it in front of people; you have to do it at home, and all that.

The researcher probed M4 a bit more asking "what is the difference between activity and fitness?" M4's response was associated with being strong and being able to run to performing different sports. "Activity and fitness? Football is probably strength, soccer is running, basketball would be strength and running, you have to throw the ball which qualifies for strength, and you have to run a lot to both sides." When asked about his physical fitness, M4 accurately stated "my physical fitness is minimal. Like most people,

I play video games and go on the computer probably four or five times a day. When I can, I go skateboarding."

Reasons to join Moving for Fun

The last theme identified to establish a frame of reference of study participants' views of participating in physical activities considered the participant's decision to "join *MFF*"; or the reasons why participants decided they wanted to participate in the *MFF* program. This theme provides informative personal insights from each study participant about volunteering to participate in the *MFF* program. The following reasons to join *MFF* were given by study participants: "anticipation of participating in *MFF* activities", "past experience in *MFF*", "opportunity to socialize", "to improve physical fitness", and "to relieve boredom".

Anticipation of Participating in Moving for Fun Activities

Most study participants joined *MFF* 2008 because they looked forward to participating in *MFF* activities. When *MFF* invitations were mailed home, program participants completed and returned an activity survey that asked what activities they wanted to see offered in *MFF* 2008. This survey is included in Appendix A. Most of the activities listed could take place at MES. Swimming however, could only be offered on the field trip. Table 4 represents the results of the 2008 pre-*MFF* activity survey based on program participant responses.

Table 4

Results of 2008 Pre-*Moving for Fun* Activity Survey

Type of activity	Number of requests
Team activities	
Basketball	6
Volleyball	9
Team handball	4
Soccer	6
Tchoukball	6
Ultimate Frisbee	6
Base games	4
Omnikin games	4
Floor hockey	6
Mass games	3
Boot Hockey	2
Individual activities	
Racquet sports	9
Running/jogging	4
Swimming	10
Leisure/fitness activities	
Cupstacking	6
Hiking	4
Geocaching	5

Table continues

Type of activity	Number of requests
Yoga	2
Pilates	2
Stretching	5
Hip Hop dance	4
Creative dance	3
Strength training	6
Hacky sack	5
Snow shoeing	4
Other interests	
Jump roping	1
Hula hoops	1
SPUD	1
Softball	1
Dodgeball	1
Football	1
Wiffleball	1
Bowling	1

All 8 study participants indicated that one reason they joined *MFF* was their desire to participate in *MFF* activities. F1 looked forward to going on the field trip and swimming. F2 thought "It would be fun because I like exercising and I've been waiting for something (an after-school program) involving activity." F3 said "I don't have many

sports on week days; I just wanted to play as many sports as I can. I wanted to try different sports that I have not done." F4 was looking forward to playing basketball and soccer. M1, a second year participants said:

> Last year, my favorite sport that we got to play in *MFF* was tchoukball, it was awesome. I would like to play it again this year. I saw it on the checklist and I signed up for that. It is going to be a blast.

M2 looked forward to "playing games and stuff; that is what I look forward to." M3 said, at first he was not sure about joining *MFF*; "My mom gave me the activity sheet and I saw all the activities. I said 'Sweet, tchoukball, I like that, and cup stacking'!" The last study participant, M4, said he looked forward to participating is certain activities like "Sharks and Minnows", riding scooters, and playing dodgeball.

Past Experience in Moving for Fun

Three study participants participated in *MFF* 2007. When deciding to join *MFF* 2008, their past experience influenced their decision to join. F1 stated she joined *MFF* 2008 because "it was fun last year". She added "the people (teacher/leaders) are nice and it is just fun activity". M1said he joined again because "Last year, I loved it (*MFF)*. It was probably the greatest thing of last year for me personally; it is the greatest after-school thing I have ever done". M4 also had fun last year stating "I loved the activities we did last year, we played dodgeball and went to the university; I liked that a lot".

Opportunity to Socialize.

Two study participants, M1 and M4, said that part of their decision to join *MFF* was so they could be around other people. In their pre-*MFF* interviews they both spoke about going home after-school and not being involved in organized activity programs. For M1, being part of *MFF* he could be around others and have fun playing activities.

This year he said "I am looking forward to seeing by buddies and playing sports with different people. When you are alone shooting baskets at home, it is not all that great. It is better when there are more people." M4 said in MFF, you get to "relate with your friends that are doing it (*MFF*) and do fun activities."

To Improve Physical Fitness.

Two study participants, F4 and M3 joined *MFF* to improve their physical fitness. F4 joined MFF "because I felt like I could get help, eating healthy, doing physical fitness, everything." M3 looked at *MFF* as an opportunity to increase the amount of physical activity he does each week. He said joining *MFF*:

> Sounded fun and it would give me my required sort of workout time for the week. Someone said (a teacher) three hours a week of workout is normal; it is what you should do to keep fit, and I only do two hours of week (karate).

Interestingly, M3 did not consider participating in physical education, recess, or playing at home a part of his "required workout time" for the week; only karate.

To Relieve Boredom.

One study subject, M2, stated he joined *MFF* because he is bored a lot. He reported he is bored "at home and at school", and *MFF* was an opportunity for him to join a program and "play games and stuff." At home, M2 said he spent most of his alone or with his grandfather.

The pre-*MFF* interview data analysis and results have painted a portrait of each study participant, the characteristics of activities they are motivated to participate in, the characteristics of activities they are hesitant to participating in, their understanding of what physical fitness and the role physical activity has in physical fitness, and reasons why they have joined *MFF*. The second phase of this study examined each study

participant as they participated in *MFF* program activities. The results of this phase of the study are reported in the following section.

Observation Results

MFF 2008 started March 18, 2008 and ended May 1, 2008. The program included 12 *MFF* sessions over a 7-week period at MES and one field trip to the University during the MES spring break. Using *MFF* 2008 activity surveys, PE 342 class discussions, and personal research, 13 PE 342 students planned, taught and led most *MFF* activities. Fifty-two activity sessions took place and 49 different activities were offered. Three activities were repeated twice; tchoukball, team handball, and Capture the Flag. The researcher lead MFF activity sessions when program coverage was needed; this occurred three times during the 7-week program.

Each session of *MFF* was divided into five timed periods. The first 45 minutes of *MFF* always took place in the school's main gymnasium. Here *MFF* participants participated in a warm-up activity followed by a *mass game*; a game that includes everyone playing at one time. After the mass game, *MFF* participants moved to the cafeteria for 15 minutes and were provided a light healthy snack. Most days, snack included a fruit or vegetable, crackers or pretzels, and fruit juice. The last hour of *MFF* was split doing two different activities. These activities were done either in two separate locations or as one large group in the gymnasium or outside. Table 5 identifies *MFF* 2008 program activities. Activities are arranged by date and classified as they were taught; as a "warm-up", a "mass game", "activity one", or "activity two". Appendix F provides a brief description of each activity listed.

Table 5

Moving for Fun 2008 Program Activities

Date	Warm-up activity	Mass Game	Activity one	Activity two
3/18/08	Smugglers	Team Handball	Ultimate Frisbee	Pedometer games
3/20/08	Lose-a-link tag	Bowling-pin dodgeball	Keep-away basketball	Team Handball
3/25/08	Twisted tag	Eclipse ball	Eggs in the nest soccer	Blanket volleyball
3/27/08	Freeze tag	Bowling-pin soccer	Tchoukball	3-3 Basketball
4/1/08	North/east/ south/west	Indoor Stations (Six activities)	Ultimate ball	Tchoukball
4/3/08	Vanishing bean bags	Frisbee baseball	Basketball	Board-n-ball
4/8/08	'In the boat'- 'in the water'	Cross-the-river	Scoot-n-shoot	Tennis-volleyball
4/10/08	Hoop basketball	Spiders and flies	Frisbee basketball	Volleyball
4/15/08	Admiral's tea	Outdoor Stations (Four activities)	Wiffleball	"Doctor" dodgeball
4/17/08	Freeze dodgeball	Tiger ball	Frisbee keep-away	Zone ultimate Frisbee

Table continues

Date	Warm-up activity	Mass Game	Activity one	Activity two
4/22/08 (Field trip)	Cooperative games Fitness stations	Orienteering to museum	Garbage ball	Swimming
4/29/08	Pac-man tag	Cupstacking relays	Battleship dodgeball	Capture the flag
5/1/08	Dynamic warm-up	Capture the flag	Indoor soccer	Rugby skills

The program started with 20 MES student participants and ended with 18. One female student withdrew from the program because of homework issues and one male student, study subject M2, left the program for personal reasons. *MFF* program participants worked very well together as a group, and as individuals, were engaged in the *MFF* activities a majority of the time. Usually *MFF* participants displayed behaviors that indicated they were having fun and enjoyed participating in the activities. They smiled and talked as they played, and worked hard to be successful. On occasion, participants needed to be reminded to pay attention during instruction.

MFF activities were designed to be challenging but not over-competitive. If an activity was competitive, cooperation was emphasized as a priority. It is evident in the literature that competition can deter some from wanting to participate in physical activities. Success in *MFF* activities was not measured by determining a winner or loser of a game, rather how well a team played together. Scores were never kept. Rules for many activities focused on involving everyone in game play, rather than allowing the stronger skilled individuals the opportunity to dominate game play. Inclusion, a "pro-

social" behavior was emphasized, reflecting recent developments in education that focus on giving everybody an equal opportunity for learning (Liukkonen, Auweele, Vereijken, Altfermann, and Theodorakis, 2007). All program participants had the opportunity to participate and succeed in *MFF* activities. In his post-*MFF* interviews, M1 reflected on the benefits of participating in an environment focused on inclusion. Here "if you have to pass to everyone, it is more fair and gives everyone a chance to play. People have more of a chance to score themselves; they are happy and they feel good."

Occasionally, some program participants showed they were not pleased participating in an activity. They would usually ask to "sit out", show little effort as they played, or appear frustrated or withdrawn. Some would verbalize their displeasure complaining about personal issues like "being tired", "not feeling good", "feeling to hot", or the sun bothering their eyes and the activity. On one occasion a PE 342 student taught a game called *Zone Frisbee.* The game was complicated and the PE 342 student set it up an area that was too small. It was unusually hot and sunny that day and the game was played outside. A few *MFF* participants got frustrated trying to play, and asked to "sit out". This was atypical and the PE 342 student teacher realized the activity did not go well and some students did not enjoy it. The *MFF* students knew the student teacher was frustrated and some told him "it was sort-of fun" and not to worry about it.

M2 behaviors frustrated some of the *MFF* participants. Because he has Asperger's Syndrome, he had difficulties communicating and connecting with most participants, difficulties adjusting to modified game rules, and appeared to lack empathy for others in the program. In addition, M2 was very strong and had the ability to throw an object hard and fast which intimidated some because they were afraid to try and catch his passes or

get hit. Several program teacher leaders asked M2 to pass in a way that others could catch the object. M2 would comply and adjust his throwing to facilitate the play of others unless he was felt frustrated; in this case he would continue to throw hard until he removed himself or was removed from the game.

At first, M2 had an occasional display of behaviors that interrupted the flow of activities. The group tolerated these behaviors, and supervisors reprimanded him appropriately. In the fourth and fifth session of *MFF* M2's behaviors started to escalate, which frustrated program leaders, *MFF* participants, and M2 himself. During the sixth session of *MFF*, it became apparent that M2's behaviors made some *MFF* participants feel unsafe and they started to dislike M2. In best interests of all involved, M2 withdrew from the program.

After the first week of *MFF*, several activity sessions were video-taped by the researcher or the physical education student teacher who helped with the program. Video-recorded sessions were used to evaluate PE 342 student teachers and to collect observation data for this study. Each study participant was observed three times using video-taped sessions to see how they participated in physical activities. In each observation, data pertaining to activity engagement was recorded as well as behaviors indicating enjoyment or displeasure of the activity experience. Data was recorded on the "*Moving for Fun* 2008 Observation Assessment" found in Appendix C. To support the analysis of observation result, notes were added to each *Moving for Fun 2008 Observation Assessment*. The notes corresponded to dated reflections from both the researcher and PE 342 students.

Eight video-taped *MFF* activity sessions yielded three observations for 7 study subjects, F1, F2, F3, F4, M1, M3, and M4, and two observations for M2. Based on the criteria defining engagement on the *Moving for Fun 2008 Observation Assessment*, study participants were rated a "0", "1", "2", or "3". A "3" indicated being engaged in the activity and "0" indicated lack of engagement in the activity. A participant was judged to be engaged in the activity if they showed the following behaviors as they participated in the identified activity:

a) Listened intently to activity instruction and directions, asking questions when unsure or volunteered responses when a question was poised to group,
b) Participated without reservation;
c) Cooperated well with others; and if they
d) Showed signs of enjoyment (such as smiles, nods, laughs, positive body language, or cooperation).

Considering the 23 observations that took place, the average assessed level of engagement was 2.78. Nineteen observations were assessed as "3's" or being engaged in the activity, and four observations were rated as "2's. A rating of "2" was assigned if three or the four criteria were observed. Table 6 shows the observed dates and activities for each study participant.

Table 6

Study Participant Observations

Study Participant	Date	Activity Observed
Female 1	4/8/08	"In the boat-in the water"
	4/10/08	Volleyball
	4/15/08	"Doctor" dodgeball
Female 2	4/1/08	Ultimate ball
	4/15/08	"Doctor" dodgeball
	4/29/08	Capture the flag
Female 3	4/1/08	Ultimate ball
	4/8/08	Scoot-n-shoot
	4/15/08	"Doctor" dodgeball
Female 4	4/3/08	Basketball
	4/8/08	Scoot-n-shoot
	4/17/08	Frisbee keep-away
Male 1	4/1/08	Ultimate ball
	4/8/08	"In the boat-in the water"
	4/29/08	Capture the flag
Male 2	4/1/08	Ultimate ball
	4/3/08	Basketball
Male 3	4/1/08	Ultimate ball
	4/15/08	"Doctor" dodgeball
	4/29/08	Capture the flag

Table continues

Study Participant	Date	Activity Observed
Male 4	4/1/08	Ultimate ball
	4/15/08	"Doctor" dodgeball
	4/49/08	Capture the flag

For each observation, a separate table was developed to record the behaviors of each study subject that was observed participating in the activity. Observation one for example, was based on Ultimate Ball, an activity session recorded on April 1, 2008. Six study participants were observed playing Ultimate Ball; F2, F3, M1, M2, M3, and M4. The 20-minute Ultimate Ball session was viewed three times to gather observation data of each study participant's engagement in the game and behaviors indicating enjoyment and fun or displeasure. After Ultimate ball observation data was recorded, notes from the researcher's study log and the *Moving for Fun Leadership Journal* of the PE 342 student who taught and lead Ultimate Ball were added to the observation. This process was repeated for each observation. Complete observation results can be found in Appendix J.

Study Participant Observation Results

Multiple *MFF* observations showed the researcher how study participants participated in different physical activities. This gave the researcher a broader base of information to report from. The following narratives summarize the observation results for each study participant.

Female 1

F1 was observed doing the warm-up activity "In the boat-in the water", playing volleyball, and playing "Doctor" dodgeball . Her average level of activity engagement was 2.66, being rated "3" doing the "In the boat-in the water" activity and playing "Doctor" dodgeball, and "2" playing volleyball. F1's engagement in volleyball was surprising because she indicated she liked play volleyball in her pre-*MFF* interview.

During each observation F1showed behaviors that she was enjoying the activity. She was observed smiling, talking with her peers, and taking risks to participate in the activity. When she participated in "In the boat-in the water" and "Doctor" dodgeball, F1 showed she was trying hard, she showed she was cooperative, and she showed good sportsmanship. In "In the boat-in the water" she was one of the last to be eliminated in the three games that were played. In "Doctor" dodgeball she supported her team by retrieving balls and passing them to teammates to throw. She cheered with her team when they knocked over a bowling pin, hit the "Doctor", or won the game.

When F1 participated in volleyball, she smiled a lot and talked or joked around with her peers indicating she was having fun. She was cooperative some of the time, but not all of the time. She would try to return the ball only if it was near her and her attempts to return the ball often were unsuccessfully.

F1also showed signs of displeasure as she participated in volleyball. She ignored others who were trying to help her participate, showing apathy; she would not try move to return the ball, and she was observed antagonizing and acting aggressively towards others. When her teammates were trying to roll the ball to the server, she would kick it

away. These behaviors were not malicious; rather, they were teasing and diverted attention from the game.

In her pre-*MFF* interview F1 shared that she does not like participating in several physical activities because she does understand how to play them, she does not perform them well, or the activities are too competitive. In volleyball, F1 showed she liked the social aspects of play, being with her friends and being part of the activity, but she got frustrated because she did not have the skills or abilities to perform the activity well. As volleyball continued, her engagement in the activity decreased and she became distracted, and showed off-task behaviors indicating she was not pleased with the activity.

F1 liked participating in "In the boat-in the water" because the rules were simple, and she had the skills to perform the activity. In "Doctor" dodgeball, F1 found a way to contribute as team member that was helpful and appreciated; she retrieve loose balls and gave them to her team mates. Participation in activities that require more developed skills or lots of movement were harder for F1. In volleyball she did not have the skills to perform the activity well, and she easily lost interest and got off-task.

Female 2

F2 was observed participating in Ultimate Ball, "Doctor" dodgeball, and "Capture the Flag". Her level of engagement was "3" in each activity. During each observation F2 showed behaviors that indicated she enjoyed the activity and was having fun. In each activity she was observed smiling, working hard in play showing effort, often ending activity with a flushed face. She cooperated well with others, talking with and assisting her peers as they played. She took risks as she played, volunteering to start the ball or move into the end zone in Ultimate Ball, to be the "Doctor" in "Doctor" dodgeball, or to

be the guard in “Capture the Flag”. F2 was always very positive when she interacted with her peers and showed good sportsmanship if she made a mistake or broke a rule. She never showed a behavior that indicated she did not like participating in the activity. Data collected in F2’s observation confirmed pre-*MFF* interview comments; she loves to be active and enjoys participating in most any physical activity.

Female 3

F3 was observed participating in Ultimate Ball, “Scoot-n-Shoot”, and “Doctor” dodgeball. Her level of engagement was “3” in each activity. During each activity she was observed working hard as she played showing effort, she cooperated well with her peers, often directing and assisting them in game play. When she or a team mate was successful, she often smiled, cheered, and shared positive comments like “nice job”. In "Scoot-n-Shoot” this was especially true.

F3 has well developed throwing and catching skills and loves to run and move. As she played, she used her skills and knowledge to foster her team’s success. F3 was always willing to take risks as she played, often succeeding in her efforts. Despite her advanced level of skill and strategic understanding of most games, she worked hard to include others and showed good sportsmanship. In her pre-*MFF* interview, F3 stated she “felt good participating in physical activities” and that she joined *MFF* so she “could be active during the week and learn new activities”. Observations in *MFF* activities clearly showed F3 enjoyed being active and playing team activities.

Female 4

F4 was observed participating in full-court basketball, “Scoot-n-Shoot”, and Frisbee keep-away. Her level of engagement was a “3” for each activity. In each

observation F4 displayed many behaviors that indicated she enjoyed participation. She smiled often, and occasionally laughed. She worked hard as she participated, often getting flushed in her face. F4 cooperated well with her peers, and was observed talking with them, assisting them, and cheering for them.

F4 was not afraid to try new activities and always showed good sportsmanship. In "Scoot-n-Shoot", a new experience for all *MFF* participants, F4 found success scoring several goals, and showed leadership on her team, helping others score goals as well. F4 did not like it when others got over-competitive or did not play by the rules. Once during basketball, she was observed raising her voice speaking to M2 for these reasons. In her pre-*MFF* interview F4 said she had never participated in an after-school physical activity program, only PE and community dance and softball programs. Observations indicated that she was enjoying her *MFF* experience.

Male 1

M1 was observed participating in Ultimate Ball, "In the boat-in the water", and Capture the Flag. His average level of activity engagement was 2.66, being rated "3" participating in "In the boat-in the water" and Capture the Flag, and "2" playing Ultimate Ball. Most times, M1 showed he enjoyed participating in *MFF* activities by smiling, laughing on occasion, working hard in play showing effort, and cooperating with others as he played. He also talked with his peers, especially his teammates; assisted others as they played, and displayed good sportsmanship. M1 did not hesitate in his participation and took risks to foster play. M1 displayed frustration, verbalizing a negative comment as he was eliminated from "In the boat-in the water"; this was about his performance in the activity and understood.

When M1 participated in Ultimate Ball, he and his friend, M2, ended up on the same team. Together, M1 and M2 tried to dominate and direct their team's play and showed intimidating behaviors towards the other team. M1 was observed shouting at members of the other team as they tried to catch or throw the ball and stomping his foot in a directed motion towards and opponent. M1 was reprimanded for this behavior and he immediately stopped.

It is the opinion of the researcher and PE 342 teacher leaders who taught or lead this activity, that M1's behaved this way to earn approval from his friend, M2. The researcher found M1's behavior participating in physical activities varied if M2 was present or not. It appeared that M1 tried to impress M2 when they played together.

In later observations, after M2 left the program, M1's behavior participating in *MFF* activities improved. M1 showed he really cares about others and tries to include them in activity. His behavior when M2 was present was surprising, countering his statements in the pre-*MFF* interview and his demeanor when M2 was not present.

When M1 was observed playing "In the boat-in the water" and Capture the Flag he did not display these negative behaviors; in fact he showed good sportsmanship, especially in Capture the Flag. Here he organized efforts within his team to capture the flag and earn freedom from jail.

Male 2

M2 was observed participating in two *MFF* activities, Ultimate ball and basketball. In each of these activities his level of engagement was assessed as a "2". In both activities, M2 showed he worked hard as he played showing effort and in Ultimate

Ball he got flushed in his face. M2 showed cooperative behaviors, talking and strategizing with his peers, and often he took risks to succeed.

At times, M2, who has Asperger's Syndrome, displayed behaviors indicating he was not happy participating in activities. He would not cooperate with his teammates, he refused to participate, and as his behavior escalated, he got argumentative, disregarded game rules, had negative comments, and showed aggression towards his opponents.

These behaviors could not be tolerated by program leaders or participants, especially in a program like *MFF*. Program participants started to complain and to feel intimidated when they played against M2 in *MFF* games. Teacher leaders became frustrated trying to manage his behaviors. After the sixth session of *MFF*, a school meeting was held, and the guidance counselor informed the researcher, who agreed, that M2 would not be participating in *MFF* any longer.

Male 3

M3 was observed participating in Ultimate Ball, "Doctor" dodgeball, and Capture the Flag. In each activity, M3's level of engagement was a "3". In these activities, M3 was observed smiling and working hard as he played showing effort. He cooperated with and assisted others as he played, and when his team was successful, he cheered and nodded his head up and down. M3 took risks to succeed and always showed good sportsmanship. In Capture the Flag M3 was observed collaborating with *MFF* teacher-leaders and teammates as they strategized attempts to capture the flag. When his team's jail was full, he assisted in guarding the jail.

In his pre-*MFF* interview, M3 stated he joined *MFF* because it gave him an opportunity to add "workout time" to his week and participate in activities he liked. He

also said activities are more fun when "there aren't too many rules, they are exciting, and there is a lot of moving around." It was evident in M3's observations, that *MFF* activities had these characteristics; he was engaged and enjoyed participating in the program.

Male 4

M4 was observed participating in Ultimate Ball, "Doctor" dodgeball, and Capture the Flag. In each activity his level of engagement identified as a "3". In each of these activities, M4 showed he was having fun and enjoyed his experience displaying smiles, nods of approval, and cheering when his team was successful. M4 is quite competitive and worked hard in his play indicated by his flushed face and sweating. M4 stated in his pre-*MFF* interview that he did not like activities that involved a lot of running because it was hard for him to keep up and often he needed to stop. Each of the observed activities involved running; M4 played continuously and did not need to stop to catch his breath.

M4 cooperated well with his teammates, planning strategies, taking risks and assisting others to meet the activity objective. This was particularly true in Capture the Flag. M4 was observed attempting to get the flag himself and strategizing with teammates to free teammates or forming a cooperative effort to capture the flag.

M4 had high expectations of himself considering his performance participating in the observed activities. At times he was observed being disappointed in his performance, shaking his head side to side. In "Doctor" dodgeball he was disappointed if his throw was off and missed the intended target. In Ultimate Ball, if he dropped a pass or threw a bad pass, he shook his head in disappointment as well. M4 enjoyed participating in the activities, but displeased with his performance.

Two of the three phases of this study have been reported regarding 8 study subjects, their perceptions towards participating physical activity before participating in *MFF* and observations conducted during *MFF.* The next section reports the final set of results, the results of the post-*MFF* interviews which examined the experience each study participant had participating in the *MFF* program.

Post Moving for Fun Interview Results

To complete this study, seven post-*MFF* interviews were conducted to learn about each study participants' experience participating in *MFF* 2008 and the perspectives they have towards participating in curricular and extra-curricular physical activity programs in the future. Seven prompt and probes were used to guide post-*MFF* interviews such as "What can you tell me about your experience participating in *MFF*?", "What did you learn about yourself participating in MFF?", "Have you noticed any changes in how you participate in physical activities?" A complete list of prompts and probes used in this interview can be found in Appendix D.

As before, interview data were analyzed using questions posed in interview prompts, indigenous and theoretical approaches. Indigenous codes were derived directly from the words of participants. Theoretical codes were derived from the literature review and needs poised by the research question. These codes were sorted into hierarchical themes, with subcategories that identified associated concepts. Four broad themes emerged from this analysis, one that directly assessed participation in the *MFF* program, or the *Moving for Fun* experience and three that reflected personal gains and rewards of program participation, *personal learning*, *personal changes,* and *new motivations.* Table 7 provides a visual display of these four themes and corresponding key concepts. The

narrative that follows defines each theme, associated concepts and interrelationships, and uses individual responses to reveal the perceptions study participants had considering their experience participating in *MFF*.

Table 7

Post-*Moving for Fun* Physical Activity Perspectives

Theme	Concept
The *MFF* Experience	Reflections of first year participants
	Reflections of second year participants
	Program "likes"
	Program "dislikes"
	Suggestions to improve *MFF*
	Messages for physical educators
Personal learning	New experiences
	Personal revelations
	New experiences
Personal changes	Mental changes
	Motor skill changes
	Changes in physical fitness
New motivations	Join new activity programs
	Share new activities with others

The Moving for Fun Experience

The first theme identified to learn how study participants felt about participating in the *MFF* program was the *Moving for Fun Experience,* the personal experience each student had participating in *MFF* 2008. Under this theme, six concepts emerged from student responses: "reflections of first year participants", "reflections of second year participants", "program 'likes'", "program 'dislikes'", "suggestions to improve *MFF*", and "messages for physical educators".

Reflections of First Year MFF Participants

Four study participants were first year *MFF* participants; F2, F3, F4 and M3. Each had positive comments about their first experience participating in *MFF*. F2 said "When I participating in *MFF* I got to meet new people, made new friends, and learned how to play some new games." F3 thought "*MFF* was fun; I liked trying different activities that I don't usually try because I don't have the equipment." F4 reiterated this comment saying "*MFF* was fun and I got to participate in sports that I have never tried." M3 added breadth to the girls' responses saying:

> I think *MFF* was really good. I got to spend time with friends and it sort of motivated you to exercise more and do more programs. *MFF* really worked as a program and helped me understand physical education more and the activities were really fun.

Reflections of Second Year MFF Participants

Three study participants were second year *MFF* participants; F1, M1, and M4. Each had something a little different to say about their second experience participating in the *MFF* program. F1said:

> *MFF* did not seem a lot different from last year, except for the field trip. You repeated a lot of stuff that was done last year, but you added different spins to it.

> Sometimes I liked it; sometimes I didn't. Most of the time, I did. I liked the field trip better this year. I liked the swimming; we couldn't go swimming last year and I liked the museum.

M1felt:

> *MFF* was a little bit better than last year. I don't know why, I just think it was better. The past two years I have done *MFF*, I would say it has been a lot of "load off my back" because during *MFF* you just have fun. You can forget about the stress of school, you can forget about homework, until you get home of course, and besides that, I just think it is awesome.

M4 also thought *MFF* "was fun, especially the exercise part." He liked most of the activities however he missed some of the activities that were offered last year, but not this year. He said, "I was really looking forward to playing dodgeball this year and I also wanted to play mat-ball (a form of kickball); they were a lot of fun last year." Although several dodgeball activities were offered, M4 did not feel they were the same as last year's game.

Program "Likes"

All study participants reported they liked participating in *MFF* for several reasons. Each study participant commented that they liked the activities that were offered. M4 stated the best part of *MFF* 2008 was the activities. "I liked Pac-man (tag game); I liked the field trip to the university, especially the swimming; that was fun." M3 liked "playing tchoukball, sliding on his stomach on the scooters, and playing tennis." F3 liked Ultimate Frisbee and playing basketball. She also commented, "There was stuff (activities) that I did not know existed; I liked learning new activities." M1 liked playing team handball and tchoukball. He summed up his thoughts by saying "I don't think there was anything I didn't like in *MFF* this year. It was awesome." His response was consistent with the results of the observation.

Five study participants, F2, F4, M1, M3, and M4, said they liked participating in *MFF* because they made new friends. F2 liked meeting "new University students". M1 said "there people that I knew and a lot of new people I've never met before." This was part of what made *MFF* "awesome" for him. M3 said *MFF* "gave him time to meet new friends and get to know a few kids better." M4 liked playing with most of the kids and he made "new friends".

Individually, study participants talked about other aspects of the *MFF* program that they liked. F1 liked participating in *MFF* because "you get more attention". At each *MFF* session there were a least seven program teacher/leaders present. F2 and M4 both liked going on the field trip. F4 liked that she could "play on teams" because "usually, I don't get to do this." M1 liked working on teams too stating "I like that team handball and tchoukball are both team sports; you can't just hog the ball you have to pass it no matter what. That gives a lot more people a chance to play."

Program "Dislikes"

Four study participants talked about aspects of *MFF* that they did not like; F1, F3, F4, and M4. F1, F3, and M4 did not like some of the *MFF* activities. F1 felt "the warm-ups were not that good in the beginning, but they gradually got better." F3 did not like stationed activities, she "likes doing one activity with everybody (participating)." M4 did not like cupstacking saying "I can't do it very well, and I was upset that our team was always last (in the cupstacking relays)." He also did not like "zone frisbee" because "it was new, no one really liked it, and it was hot outside."

F1and F4 had other issues with *MFF* that they spoke about. F1 thought PE 342 students were "really nice, but they were too soft on us; they should have been a little

more forceful when they asked us to be quiet." As a program leader and researcher, this was a difficult group to quiet down; more difficult for sophomore pre-service teachers. F4 got frustrated with her peers participating in activities. She felt "some kids didn't really participate a lot and they should have… it would have been better for our team if they had played more." She also commented on that "some kids threw the ball way too hard; one kid (M2) almost hit some of us in the head with the ball."

Suggestions for Improving Moving for Fun

Five study participants made suggestions to improve *MFF* in 2009; F1, F2, F3, M1, and M3. F1 and M1, second year participants in *MFF*, both thought the healthy snack offered should be changed. F1 wanted to see "veggie fries" offered; M1, "salt and vinegar potato chips". M1 shared his thought saying "you should be little more lenient on snacks. They are awesome and their healthy, but there should be at least one fattening thing. I know it's not healthy, but sometimes I just don't want that (healthy) food."

F1 also thought PE 342 students should "think up games themselves, with their own rules and stuff." F2 thought *MFF* organizers should "have a swimming meet as part of the field trip." F3 felt "we should stretch more before doing activity so we can work harder." She also felt basketball would be better in *MFF* if regular basketball rules were enforced saying "I think when kids travel or double-dribble, it should be pointed out; that would help them (*MFF* participants) get better." The last suggestion to improve *MFF* came from M3. He thought certain activities should be offered more than once, in mini-units. He said

> If they did tchoukball on a Tuesday and on a Thursday, then the next week and other activity like cupstacking or relays, and then the next week you do something different. It would give people a chance to improve on something the next time.

> If you just do one class, you cannot change anything or push yourself to get better; if you do an activity two times in a row, you have a second chance.

Each of these suggestions will be considered next year when *MFF* 2009 is planned.

Messages for Physical Educators

Four study participants made comments that could be useful for physical educators; F2, F3, M1, and M3. Three had to do with adding frisbee to the MES curriculum and one study subject spoke passionately about inclusion. F2, F3, and M3 all liked participating in Ultimate Frisbee. F2 said "the gym teachers won't let you play Ultimate Frisbee because you might get hit in the head with the Frisbee or something, but the university teachers let us play Frisbee and have some fun." F3 thought learning how to use a Frisbee would be good in physical education. "Kids would learn not to be afraid, like with balls; when they learned to catch it (a Frisbee) they would not be afraid of it" and "they would gain confidence" playing the game. M3 also thought Frisbee should be offered more than a recreation activity in physical education saying "in PE we only do Ultimate Frisbee when we do the mile-run, after everyone is done; we never had a solid unit on it."

M1 had strong feelings about making sure everyone could play and be included in activities. He felt in *MFF* this occurred more often than in physical education. He used his experience playing Tchoukball to explain.

> In *MFF*, when we played Tchoukball for example, you have to pass a certain amount of times before you can shoot and most of the time in PE that does not happen. Most of the time classmates just grab the ball and either run or they shoot. They just get it done and over with. Nobody else gets a chance to play. I don't think that is fair.

He went on to say, “If you have to pass to everyone it is more fair and gives a chance for everyone to play; people have more of a chance to score themselves which makes them feel happy and feel good.” M2 reiterated M1’s feelings say “in *MFF* you are sort of driven to help other people and work on (improving) your own physical and mental abilities.”

Personal Learning

The second theme identified through post-*MFF* interview data analysis was *personal learning*, or what students learned about themselves participating in the *MFF* program. Three concepts emerged considering this theme: “new experiences”, “personal revelations”, and “new relationships”.

New Experiences

All 7 study participants responded to the interview prompt, “What did you learn about yourself participating in *MFF*?” Each participant felt trying new activities was a positive experience, but they had unique views about these experiences. The new experiences of each study participant are reported individually.

Female 1. F1 reported:

> I did activities that normally I don’t do. My favorite activity was the one where we hit the ball with a racketball racket over the volleyball net (eclipse ball). My favorite part of the field trip was using the exercise room. I liked using the treadmills and some of the other pieces of equipment. Eclipse ball and all the activities on the field trip were all new to me.

Female 2. F2 tried Ultimate Frisbee for the first time and learned “I can do it!” She had never tried Ultimate Frisbee, Team Handball or Rugby and felt learning about these activities “was really fun, especially Rugby.” F2 liked rugby because “you learn to do teamwork and that will probably help you when you do anything.” Learning Rugby

was exciting for F2 because she felt the learning as it occurred saying “at first I really did not know what to do, when I got to know how to do it, it really got fun.”

Female 3. F3 enjoyed learning about ultimate Frisbee, rugby, and football in *MFF*. “We don’t play Ultimate Frisbee in physical education and we don’t get to play rugby in gym. We don’t play football either. We did in *MFF*”. She felt these activities were fun and that she could try these activities at home, teaching others how to do them.

Female 4. F4 experienced the transfer of learning during the *MFF* program. She first learned how to play “tchoukball’ in two *MFF* sessions; then she experienced it in physical education. She said “In *MFF* you learn new things. I didn’t know that when we did tchoukball in *MFF*, we would also be doing that in gym. Now I am good at it in gym”. She also experienced Ultimate Frisbee and rugby for the first time and “liked them too”. F4 stated trying new activities “felt good”. She learned that “eventually I learned I could do it (the activity). It is better now because I am not afraid to get involved. Before, I used to bum out and sit aside”.

Male 1. In the post-*MFF* interview, M1said he experienced “a few new activities” but he could not remember what some of them were. He talked about one activity he did on the field trip. “We did one group activity where we pretended to be in the water and you had to carry a gym mat across the ‘water’ (gym) without dropping it in. It was really weird.” When asked about his experience trying new activities, M1 said,

> In some of them I could have sworn I was great, and in others, I wasn’t all that good. In one activity, the one where we were doing relays with cupstacking, I could have sworn I was the worst one doing it, but a lot of people thought that way.

He went on to say “it was fun” when he was asked if he liked the activity.

Male 3. M3 reported he enjoyed trying new activities in *MFF*. He said "We definitely did new things in *MFF*, like scooters, I had never done that before, that was fun". He also enjoyed playing baseball (wiffleball) and team handball, activities he had not experienced at home or in physical education. M3said he liked game variations, although when he had to use skills he was weak at, as in soccer, and this took away from his enjoyment.

> I have never actually played the sort of dodgeball game where you throw the ball and knock done the pins or the four-way soccer pin game. I liked the game where you are on the mat and you had to throw the ball across the gym and hit the other team's pins better, I am not very good at soccer.

Male 4. M4 reported experiencing several new activities such as Ultimate Frisbee, tchoukball, Pac-man tag, team handball and juggling. These experiences made him feel "weird". He said "I feel weird; I know how to do the games now, what the activities are, and what the whole game is; if I had to teach it to other kids, I know how to do it." This weirdness could be labeled as learning. M4 also felt these experiences were "kind of competitive and entertaining." Here M4 talked about his experience in the cupstacking relays and trying Ultimate Frisbee.

Early in the post-*MFF* interview, M4 said he did not like cupstacking because he was not very good at it. M4 is a competitive young man; doing cupstacking in a competitive setting was frustrating for him. "I was upset that our team was always last; it was like the teams' were stacked when we did the relays. All of the better cupstackers ended up all on one team." Experiencing Ultimate Frisbee for the first time was more entertaining for M4.Once he learned the skills needed to work with a Frisbee, something that *MFF* participants worked on in several *MFF* sessions, he stated "I liked playing

Frisbee keep-way; when people would try to through long distance, I would smash down the Frisbee!"

Personal Revelations

Six MFF study participants experienced a self-revelation during *MFF*, learning something about themselves that was surprising and valuable. F1 was the only study participant who did not. Personal revelations varied and will be reported individually.

Female 2. F2 learned that she could run fast and that she had developed motor skills that she did not know she had. Considering her running, F2 said, "I learned that when I play the games, like basketball and all the other ones, I can run as fast as others. I learned I could run extremely fast!" She also learned she could hit a pitched ball saying "When we played wiffleball, I learned that I could hit the ball when someone is pitching it. I did not know I could hit a ball without hitting off the tee (batting tee)". In tennis, she learned could "hit a tennis ball very hard".

Female 3. F3 learned about working hard participating in *MFF* activities stating, "I learned that if I work hard, I can accomplish what I have to do and get better at it." She went on to talk about her experience learning how to ride on a scooter on her stomach:

> There was one activity during stations that I had to ride on a scooter, putting my stomach on it. Other people in the group were not working hard. I was able to get back and forth on the court before they got to one end of the court. I was working hard!

F3 also learned something about her basketball foul-shooting skills playing "knock-out" in *MFF* one day. She told the following story about this revelation:

> One time, when I came home (from *MFF*), I told my mom about everything that we did because it was exciting; I think it was a day we did stations. We played knockout in basketball that day and I got everyone out in the first game. I learned

> that if I do foul shots and I am in a hurry, I make more of them. In a basketball game, when I have to do foul shots, I miss them because I am not in a hurry.

Female 4. F4 realized several things about herself participating in *MFF*. She learned that "it feels good to be active." She went on to say, "I can be active and stay fit doing things (physical activities) and that I am more energetic." F4 performed better than she thought she would in the *MFF* activities stating, "I can do better in sports that I thought; I can try different sports and I am good at them."

F4 learned that she had the skills to participate in a variety of activities and that she was a good "team" player, and that she was "not afraid to get involved" anymore. She found that she could "throw better" than she thought and the she could "run fast" and "longer". She also realized how she could be part of a team. She learned "I can pass the ball more, instead of being a ball hog, and let everyone have a chance to play."

Male 1. M1 realized that he had more stamina participating in group activities compared to playing at home alone.

> When I get into sports, I am really excited and really hyper. I noticed that I can move faster than I normally can. I am more athletic, quicker on my feet, basically, on my toes. When *MFF* ended, I noticed a slight decrease in what I just explained. When I was playing games during the program, I could move longer. Lately, I have been playing basketball outside at my house, and I noticed that I can move and be active, but I run for shorter times.

In his pre- and post-*MFF* interviews, M1 stated he preferred to participate in team activities.

Male 3. M3's revelations had to do with goal setting. He learned that "I can do a lot more than I thought I first could." He explained what he learned talking about sit-ups.

> If you think you can do 100 sit-ups, you'll do 100 sit-ups. If you say you can do 25 sit-ups that is what you will do. It is about aiming for higher limits. Now I have been doing sit-ups every night, adding on more. I am up to 200 sit-ups.

In running, M3 went on to say,

> If you think you need to stop, and you do, this is not going to help you. You are going to stop and you are not going to get anything from it. But, if you think "if I just make it through this lap, then the next lap should be a cinch", it will be a better experience and it will be more fun.

Male 4. M4 learned about the value of practice, he realized new abilities in his throwing, and he learned about working his body hard participating in *MFF* activities. M4 talked about cupstacking once again, this time in a positive light saying "I never thought I could do cupstacking, but once I got the rhythm, I go used to it." M4 also realized that he could throw the ball a long distance. He remarked about this exclaiming "I did not know my own strength; I can through the ball all the way across the gym when I play tchoukball." In a few activities, M4 experienced muscular soreness the next day. He realized that he got sore because he "worked hard" and this was "probably for the better", meaning doing activities that made his sore meant he was improving his body's fitness.

New Relationships

Four *MFF* study participants stated they formed new relationships while participating in *MFF*; friendships with other *MFF* participants and program leaders. *MFF* 2008 started with 20 participants: five from fifth grade, five from sixth grade, eight from seventh grade, and two from eighth grade. As mentioned previously, two seventh grade students withdrew from the program one female, and one male, M2. Thirteen PE 342 students taught and lead *MFF* activities and four other adults supervised and lead the program, attending each session. Each session, four university students taught and led MFF activities and over the course of the program, each PE 342 students taught three or

four times. Most times, PE 342 students and program leaders participated in program activities when they were not teaching. Middle school students enjoyed the opportunity to play and get to know PE 342 students during program activities and became friendly with program leaders that they worked with each session. F2 stated:

> When I participated in *MFF*, I got to meet new people and made new friends. I liked that we got to meet new university students and I liked that I got to go outside with other kids; that was fun… I made two new friends, M1 and Rebecca.

During their post-*MFF* interviews F4, M1, and M4 said they had made new friends during their *MFF* experience. M1stated "there was a lot of new people I have never met before" working with the MFF program.

Personal Changes

Six of the 7 study participants reported that they experienced personal physical and/or mental changes considering their participation in physical activities. Mentally, several study participants reported that *MFF* changed the way they thought about participating in physical activities. Physically, study subjects reported changes in the motor skills and physical fitness. F1 was the only study subject that did not feel that she had changed in any way. She did say she was unsure of changes in her physical fitness because "We have been doing fitness testing in PE since *MFF* ended; we are not done so I don't know if my fitness has changed."

Mental Changes

Five study participants felt that mentally, the way they thought about participating in physical activities changed since joining *MFF*. F2 said "Now, I try to get my homework done quickly so I can go outside sooner; I want to try different sports this

year". She went on adding "I feel good; I have learned that I can get along with kids and I have learned some new games that I can teach others."

F3 realized she was listening and being more patient with her coaches saying "When I listen to my coaches, it makes me get better and I get more playing time; in basketball when I do well in practice, I get to play more in the games." F4 gained self-confidence in her abilities to participate in various physical activities stating "I am more into sports now; people are passing to me more often now." M3 felt his "frame of thinking" changed. Instead of thinking a lot about doing certain activities, like the mile run, "I'm just going to try to 'belt it out' without really thinking; just try and go through it, push myself beyond what I thought would be my limits and go against the activities more and have more fun." M3 also felt he developed a better "team concept" considering participating with others in physical activities.

> In *MFF*, when we played tchoukball, where we had to pass to other people sometimes and then shoot, I sort of realized to pass to other people more, helping other people with it rather than yelling at them saying 'why didn't you pass to me, I could have scored?' Why not let others play and have better team work. Other people can do just as good as I can.

M4 learned "I can do more stuff if I motivate myself" elaborating on his improved cupstacking skills and ability to do more activities. "I had not done the crab walk since second grade, and my body has changed… I can move different now without having it hurt."

Motor Skill Changes

Several study participants felt their motors skills had improved during *MFF*. F2 and F4 both felt they could run faster now. F2 stated "In *MFF* you had to run a lot to catch the basketball or kick the soccer ball or to play tag; it helped me run a lot faster."

F4 said that now she "can run faster and catch the ball better". This helped her engage in physical education classes. F4 stated "I am not sitting out or anything like that…people are passing to me more." M1 felt he made gains in his athletic abilities saying "I am more athletic… now I can slide further." M4 felt his basketball skills improved stating "In basketball, when we play 3-3, I a little bit better; now I can make more 3-point shots."

Changes in Physical Fitness

Three study participants felt their cardio-respiratory endurance improved as a result of participating in *MFF*. F2 felt not only could she run faster now, but she could run longer stating "I can run faster and longer since I joined *MFF*." F4 talked about her new ability to run around her block at home. Before *MFF*, when she tried to do this, she could not. Since *MFF*, F4 stated "now I can run around my block without stopping." M4 spoke about his improvement in the mile-run stating "I have more endurance; I can run the mile non-stop, I could not do that before."

New Motivations

As a result of participating in MFF, all seven study participants reported being motivated to join new physical activity programs at school and in the community and some felt motivated to teach some of the activities they learned in *MFF* to others.

Join New Physical Activity Programs

All study participants reported they wanted to join new physical activity programs, indicating they are motivated to continue being more active. Several reported they wanted to join school programs, others talked about joining community activity programs. Table 8 summarizes what activity each study participant said they wanted to join and the timeframe of anticipation.

Table 8

Desired New Physical Activity Experiences

Study Participant	Desired physical activity experience	Timeframe
Female 1	Join a Swimming Team	Near future
	Tennis	Missed opportunity
Female 2	Joined "Girl on the Run" 2008	Enrolled
	Lacrosse, baseball, softball and Basketball	Future
Female 3	Join or earn placement on more basketball and soccer teams	Ongoing
Female 4	Join "Ladies Workout Express"	Near future
Male 1	Soccer	Next season
Male 3	Tennis	Missed opportunity
	Golf	Anticipated opportunity
Male 4	Football	Near future
	Lacrosse	Next season

F1 wanted to look into joining a local swim team, F2 spoke about a new activity she joined, "Girls on the Run" and participating in several activities in the future. F3, who is not old enough to play interscholastic sports at MES and a rising athlete in both sports, works hard to be eligible to for participation in elite community programs. F4 was

looking forward to joining a ladies fitness center with her sister and mother. M1wanted to try soccer saying "I have never actually played it, but I would like to; you get to use your feet, you run, it is a team sport; it looks like an all-around fun sport." M3 talked about trying golf saying "They (MES) may come out with a golf team; I was thinking of doing that because my cousins are starting to do golf and it would be interesting." M4 talked about trying football this fall and lacrosse in the spring of 2009.

F1 and M3 both spoke about the missed opportunity to join the MES tennis program. They had an interest to join the tennis program, but for unknown reasons they did not get the school announcements or required permission slips to join the program. As a result, they missed the opportunity to join the tennis program.

Share Activities with Others

Three study participants reported that they felt that they wanted to and could teach some of the activities they learned to play in *MFF* to others. F2 said "I learned some new games … now me and my friends can play some of these games at my house." F3 had similar feelings saying "I can tell people about getting the equipment so we can play the activities we did in *MFF*… I liked learning new activities that I could repeat at my house and other people's houses." M4 shared that "Now that I know how to do the games, what the activities are, and what the whole game is; if I had to teach it to others, I know how to do it."

Post-*Moving for Fun* Study Participant Profiles

The results of three data collections have been presented considering the experiences of 8 study participants identified as lacking physical fitness before, during, and after *MFF*, a fitness intervention program. The following narratives extend the pre-

MFF study participant profiles presented at the beginning of this section, summarizing each study participant's experience.

Female 1

F1 participated in 11 of the 12 *MFF* sessions and attended the *MFF* field trip. During most *MFF* sessions, F1 engaged in the activity at hand with a positive attitude and enjoyed the opportunity to play with her peers. She liked trying activities she had never tried before like eclipse ball, "In the boat-in the water", and cooperative problem-solving activities like "Cross the River". She also liked going to the university and having the opportunity to swim, use the exercise facilities and equipment, and tour the campus. Occasionally, when an activity required a lot of running or skills F1 was weak in, participating in *MFF* activities was challenging for F1 and she needed to be encouraged by teacher leaders to increase her level of participation.

F1 enjoyed the social aspects of participating in *MFF*. F1 is very talkative and social, and likes to be the center of attention. At times she needs to be reminded to quiet down, to pay attention, and to be respectful to teacher leaders. F1 did not like to wear sneakers. She said she did not like to wear the sneakers she owns and preferred wearing plastic clogs with heel-straps. F1 was observed playing several times without suggested footwear, sneakers, and *MFF* teacher leaders chose not to make this an issue; she safely participated *in MFF* activities.

Based on observations, F1 lacks muscle tone and developmentally, she has weak motor skills. She cannot run with fluid motion, struggles to move for long periods of time. She has weak striking skills with implements such as tennis rackets and bats, has weak throwing and catching skills, and has slow reactions. In her pre-*MFF* interview, F1

stated she does not like running, and this showed when she participated in activities that involved a lot of running. She carefully chose her level of participation in those activities.

F1 stated in her pre-*MFF* interview that she is aware of her lack of fitness and motor abilities. This did not seem to concern her when she participated in *MFF* activities. She was very comfortable participating in most *MFF* activities, displaying behaviors that indicated she was engaged, working hard, having fun, and interacting well with others. F1 showed she is more comfortable participating in individual sports and activities, and expressed the desire to pursue tennis and join a swim team.

Female 2

F2 attended all 12 *MFF* sessions and the *MFF* field trip. F2 enjoys being physically active in most any setting and enthusiastically participated in *MFF* physical activities. She enjoyed competing against others in a friendly environment and worked well with her teammates. F2 worked hard participating in program activities often getting red-faced and sweaty in play, showing her level of effort and engagement in activity.

F2 is a very talkative and happy child who smiles a lot and is constantly interacting with her peers. At times, F2 had to be reminded to pay attention and quiet down during instruction because she was interacting with her friends. Despite being 'chatty', once an activity started, she would focus on the task at hand.

Developmentally, F2 displayed average locomotor skills (such as running, hopping, skipping, galloping, and jumping) and manipulative skills (such as throwing, catching, striking, and dribbling) to successfully participate in *MFF* activities. She had the physical fitness needed to participate in *MFF* continuously.

Participating in *MFF* helped F2 improve her running, gaining cardio-respiratory endurance and speed. She was very excited about this. In her post-*MFF* interview, F2 also spoke about joining "Girls on the Run", a motivational running program for girls and how much fun she was having in that program as well.

Participating in *MFF* also motivated F2 to track her physical activity. At the beginning of *MFF*, each participant was given a pedometer, an activity log, and challenged to track their activity until *MFF* ended. F2 took this challenge very seriously and each day would show me her activity log. At the end of *MFF*, F2 presented me her 7-week activity log, and was quite proud that most days she exceeded the recommended 10,000 steps.

Female 3

F3 attended 10 of the 12 *MFF* sessions and participated in the *MFF* field trip. She always worked hard, was attentive, polite and respectful to her teachers and peers. Often she facilitated the play of others, drawing them into the activity.

F3's eligibility to join *MFF* mystified program teacher leaders. She appeared physically fit, showing flexibility, muscular strength and endurance, and good cardio-respiratory endurance participating in *MFF* activities. She displayed very strong motor skills, especially skills used in basketball or soccer (such as throwing, catching, dribbling, kicking, and shooting) and an advanced knowledge of strategy in her play.

F3 used her advanced abilities to be a positive role model for students in the program. Her play showed she has had experience playing team sports beyond physical education. She worked well with others, often facilitating their participation before taking

her opportunity to show success. Occasionally, F3 got frustrated working with some *MFF* participants because they were not serious or focused on improving their play.

Female 4

F4 attended 8 of the 12 *MFF* sessions and participated in the *MFF* field trip. She had the highest absentee rate in *MFF*, missing several *MFF* sessions near the end of the program. She was absent because of homework, a funeral, and involvement in another afterschool program which started the last week of *MFF*.

F4 is a thoughtful soft-spoken young lady who enjoys participating in physical activity. She has average and weak motor skills and is not a strong runner. F4 likes being part of a team and works hard when she plays. Often she was observed being fully engaged in *MFF* activities, showing effort, good sportsmanship, and cooperatively working with others to meet the objective of the game. F4 showed she was serious about her participation in *MFF* activities, sometimes showing frustration with others by telling them to "play by the rules" and to "cooperate" so the team could be successful. She said "Some of the kids didn't really want to participate a lot and I thought they should have… it would have been better for our team if they were on it if they had played."

When *MFF* started, F4 was not confident in her abilities to participate in physical activities in a large group setting, saying "before I used to bum out and sit aside." *MFF* was her first experience working with others in a school sponsored activity program. Over the 7 weeks of the program, F4 discovered she could adequately participate in physical activities and even gained the confidence to take risks participating in physical education. F4 said participating in *MFF* activities "felt good, I learned eventually I can do things; it (participating in physical activities) is better now, I am not afraid to get

involved". She spoke about tchoukball saying "I didn't know that when we did tchoukball in *MFF* we would also be doing that in gym (physical education); now I am good at it in gym."

Male 1

M1 attended 10.5 of the 12 *MFF* sessions and attended the *MFF* fieldtrip. Most of the time, M1 displayed behaviors indicating he was engaged in and enjoyed the activities. These observations were verified by M1 in his post-*MFF* interview. Occasionally, during the first half of the *MFF* program, M1 was aggressive and behaved inappropriately during *MFF* activities. When this happened, it appeared his goal was to gain advantage over some or approval from others. This happened when M1 and M2 participated in the same activity session and were on the same team. It appeared the goal of this behavior was to gain advantage over opponents and approval from M2. Teacher leaders learned that, together, M2 and M1 could dominate play and intimidate others when they were on the same team. After April 1, 2008 M1 and M2 were separated during *MFF* sessions whenever possible.

During the second half of *MFF*, after M2 left the program, M1 behaved much differently. He became more of a team player and positively engaged in program activities, displayed a positive and cooperative attitude towards teammate, and showed good sportsmanship to opponents. When M1 participated in physical activities, he showed no signs that physically he lacks fitness. Like F3, program leaders did not understand why M1 was eligible to be part of the *MFF* program. He was had the muscular strength and endurance and cardio-respiratory endurance to perform all *MFF*

activities. He also displayed average motor skills and earned the respect of his peers for these abilities. M4 considered M1 one of the better "athletes" in the program.

Male 2

M2 participated in the first 6 of the 12 *MFF* after-school program sessions and withdrew from the program after the April 3rd, 2008 session. M2's behaviors showed he had difficulties communicating with others, he disliked change in routine activities, he avoided direct eye contact, and he appeared to lack empathy for others. Unlike many who have Asperger's Syndrome, most of M2's motor skills are average for his age however his ability to throw and catch was above average. At times, this became a problem. M2's strong ability to throw overhand would often intimidate other program participants.

M2 showed he could interact well with others in conversation and activity some of the time, but other times he could not. He had a close friend in the program, M1, who occasionally caused problems with M2. M2 was very competitive and he always wanted to win. He did not tolerate weakness in others and did not adjust well to change. This was especially noticeable when PE 342 teacher leaders modified instruction of the same activity taught in two different *MFF* sessions (such as tchoukball and team handball).

When M2 got frustrated, he would get verbally and physically aggressive in his play and take a self-assigned 'time out' during play. The guidance counselor monitored M2's behavior closely and often stepped in to counsel M2 when he showed difficulty behaving appropriately. He helped M2 manage his inappropriate behaviors on a day-to-day basis. M2 has the ability to play well with others, but his competitiveness, need for consistency, and success eventually made participation difficult.

In the first three sessions of *MFF*, M2 participated with minimal problems, but, in the fourth, fifth, and sixth *MFF* sessions, M2 displayed challenging behaviors that required intervention from program leaders and the guidance counselor. It became clear that M2's frustrations and behavior was affecting the participation of others in the program and a parent conference was planned. During the parent conference it was decided M2 would no longer participate in the *MFF* program. M2 disclosed he did not want to participate in the *MFF* program any longer because his mother was forcing him to participate. As a result, M2's frustration grew each day he attended *MFF*. Considering the best interests of M2 and the other *MFF* program participants, M2 withdrew from the program and the study after the sixth session of *MFF*.

Male 3

M3 attended 11.5 of the 12 *MFF* sessions. He could not attend the *MFF* field trip because his family went on a vacation. M3 was a pleasant student participant who got along well with others, was respected by adults in the program, and worked hard in everything he did.

M3 displayed average motor skills in most *MFF* activities, but superior ability to perform cup-stacking. Several times during *MFF* sessions, M3 performed and practiced his cup-stacking skills. Everyone enjoyed his performances! M3's lack of fitness and dislike for running was not evident in *MFF* activities. He performed all activities adequately and did not take any unscheduled breaks.

M3 worked hard participating in *MFF* and showed he was positively engaged in program activities. M3 enjoyed challenging himself to do better. For example in cup-stacking M3 stated "I am 0.3 seconds off the World's Record" for performing the

competitive cupstacking routine. During the program sessions, he requested that we time his routine to check his performance. The day he did this he was about 5 seconds off the World's Record. His demonstration was quite impressive.

Male 4

M4 participated in 9 of the 12 *MFF* sessions and attended the *MFF* field trip. He worked hard participating in *MFF* activities, often getting sweaty and red-faced. Socially, M4 got along well with his peers and displayed good sportsmanship during *MFF* activities.

M4 showed he likes participating in physical activities and enjoys being competitive. Physically, M4 lacks coordination and agility when he moves. M4 also has weak locomotor skills (such as running, hopping, skipping, jumping) and has average manipulative motor skills (e.g. throwing, catching, dribbling, striking).

M4 knows he is not physically fit and thinks of himself as "normal" spending most of his time being sedentary. Despite this and other weaknesses, M4 had high expectations for his performance in *MFF* activities. Sometimes he got frustrated if he or his team did to excel in an activity. M4 learned that if he worked hard he could overcome his weaknesses and improve his performance.

Summary

Section 4 presented the results of a 3-phased phenomenological study addressing the research question: How do identified middle school student perceive themselves participating in physical activity before and after participating in an exclusive fitness intervention program, *Moving for Fun?* Throughout section 4, several stories have been told using research results to gain insight to the perspectives these identified students

have towards participating in physical activity. Section 5 will summarize the findings of this research and present the conclusions and implications of this study.

SECTION 5:

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND COMMENTARY

Introduction

This section presents a summary of this study and important findings interpreted from the results presented in section 4. Few if any phenomenological studies have been published that have studied the perspectives of students identified to lack physical fitness and their feelings towards participating in physical activity. The findings of this study are considered within the context of the review of literature in section 2 of this study and social-cognitive theories of motivation considering participation in physical activity. From the interpretation of findings, several implications are identified and recommendations are made considering further actions and research. This section concludes with the researcher's reflection about conducting this study and her closing remarks.

Summary of Study

This phenomenological investigation began with one research question: How do identified middle school students perceive themselves participating in physical activity before and after participating in an exclusive fitness intervention program, *Moving for Fun (MFF),* an exclusive 7-week community-based fitness intervention program? No studies were found to have been conducted on this specific population of students, their perspectives towards participating in physical activities, and the use of fitness intervention programs. The review of literature revealed facilitators and barriers of physical activity that typically can affect the behaviors and attitudes middle-school aged children have towards participation in physical activity including biological,

psychological, social, and environmental factors. Considering these factors, *MFF* was designed to be inclusive, fun, and enjoyable for program participants with the goal of motivating an increase in physical activity at home, at school, or in the community.

Using pre- and post-*MFF* interviews and observations, three sets of data were collected from 8 study participants. Pre-*MFF* interviews were conducted to establish a frame of reference for each study participant's perspective considering participation in physical activities at home, at school, or in community settings before *MFF 2008*. During the *MFF* activities, three observations were conducted on each study participant to add depth to the data collection. Post-*MFF* interviews were conducted to learn each study participant's experience participating in the *MFF* program. In the third week of *MFF*, one study participant dropped out of the program and this study, reducing data collections by one observation and one post-*MFF* interview.

Each data set was analyzed and reported on separately in section 4. Supported by the use of NVivo7, pre- and post-interview transcriptions were studied, sorted, and analyzed with several themes and concepts emerging from the data analysis. Results were presented considering the themes and concepts that emerged in data analysis and the personal perceptions of study subjects. Video-taped observations were analyzed using a three-tiered system developed by the researcher to understand each study participant's engagement in the observed activity as well as behaviors indicating enjoyment or displeasure within the activity.

Considering the results of pre-*MFF* interviews, it was found that all study participants liked participating in some kind of physical activity and that "having fun" was an important incentive to participate, along with the opportunity to socialize with

others and the challenge participation in the activity presented. For many study participants the anticipation of participating in *MFF* activities and the opportunity to socialize with *MFF* participants also motivated their decision to join *MFF*.

During the pre-*MFF* interview, study participants also reported on personal barriers that deterred engagement in various physical activities. These barriers included not liking an activity, feeling inadequate participating in certain activities, the fear of being hurt in or the competitive nature of an activity. In addition, pre-*MFF* interview results also revealed that study participants did not understand fundamental concepts of physical fitness. They could not adequately define what physical fitness is or the role physical activity has in developing physical fitness. Despite being informed that their personal level of physical fitness "needed improvement" in several categories, half of the study participants had positive perceptions of their physical fitness. The other half of the study group personally understood their lack of physical fitness.

During the 7-week *MFF* program, three observations were conducted to learn about each study participant's participation in physical activity. The results of 23 observations showed that the average assessed level of engagement in observed *MFF* activities was 2.78 with "3" indicating full engagement in the activity. Observation results showed that all study participants displayed behaviors indicating that they enjoyed participating in observed *MFF* activities including smiles, effort, and cooperation, positive interactions with others, risk taking, and good sportsmanship. Four of the 8 study participants displayed one or more behaviors indicating they were displeased with the activity itself or fellow participants during one or two observed activities. The observed behaviors indicating displeasure while participating in an activity included lack of

cooperation or effort, apathy, antagonistic or aggressive behaviors, disregard for game rules, negative comments, and arguing with others during play.

Post-*MFF* interview results revealed each study participant's feelings and feedback pertaining to the experience of participating in *MFF*, including personal learning that occurred during *MFF,* personal changes that occurred as a result of participating in *MFF,* and new motivations study participants had towards joining new physical activity programs. Considering the *MFF* program in general and the specific activities offered, post-*MFF* interview results indicated each study participant's "likes" and "dislikes". Based on their *MFF* experience, study participants also had several suggestions for physical education teachers to consider.

During *MFF* each study participant reported they experienced personal learning during *MFF*. They learned how to participate in new activities, they formed new relationships, or they experienced a personal revelation. In addition, 6 of the 7 study participants reported that they experienced a physical or mental change as a result of participation in *MFF*. These changes included noticing an improvement in health-related fitness, an improvement in motor skill performance, or a change in attitude towards participating in physical activities. The last result reported by all 7 study participants was the motivation to continue being physically active after-school by joining new physical activity programs at school or in the community. Some study participants also reported they were motivated to teach activities they learned in *MFF* to others.

To effectively serve the needs of this population of students, school administrators, physical education professionals, parents, and community members need to 'hear' and "listen" the responses 8 identified middle school students had considering

their knowledge of the concepts of physical fitness and participation in physical activity in different settings; at home, school, and in community programs. The information these middle school students have shared can be used to create programs that can motivate positive behavioral changes in the larger population of students who lack physical fitness.

This study was limited to a small population of middle-school students identified to lack health-related physical fitness. The conclusions that follow have been formed connecting the phenomenological findings of this research to research reported in the review of literature in section 2 of this study. Following these conclusions, implications of this research are discussed and recommendations are made considering actions that need to take place considering the larger population of students who lack physical fitness in middle-school. This study serves as a foundation for future phenomenological research that will consider broader populations of students identified to lack physical fitness such as other middle school-aged, high school-aged students, and college students.

Interpretation of Findings

How do identified middle school students perceive themselves participating in physical activity before and after participating in an exclusive fitness intervention program, *Moving for Fun (MFF),* an exclusive 7-week community-based fitness intervention program? The answer to this question is not simple considering each study participant had his or her own unique perspectives towards participation in physical activity in different settings and with different groups. Conclusions have been formulated from the "voices" and observed behaviors of 8 study participants as a collective group. Each conclusion is supported by outcomes reported in section 4 and linked to the review of literature in section 2 of this study.

Students identified to lack physical fitness enjoy participating in physical activity when they have 'fun'

According to the U.S. Department of Health and Human Services (1997), when teenagers were asked why they like to participate in physical activity in a national survey, they responded "because it's fun; they do it with friends; it helps them learn skills, stay in shape, and look better" (p. 1). O'Reilly, Tompkins & Gallant (2001), reported that students often use the word "fun" to predict or evaluate the worth of activities. An activity that is perceived to be fun acts a motivator and draws students into the activity. Physical activities that foster skill development should be designed to be pleasurable and to enable the participant to pursue the activity in the future as well as socialize with a group (O'Reilly et al., 2001). To foster a fun, physically beneficial, socially attractive, learning environment *MFF* was carefully designed considering literature determining adolescent participation in physical activity. Biological, psychological, social, and environmental factors were considered. The results of this study presented in section 4 indicate *MFF* was well planned and achieved the objective of creating a safe, enjoyable, and atmosphere that motivated participation in physical activity in a population of student identified to lack physical fitness.

Before *MFF* began, middle school students who lack physical fitness reported they enjoyed participating in some types of physical activity and each study participant reported on activities they liked to participate in. Activity preferences varied considering the type of activity, the setting of the activity, or who the activity was done with. Table 2 identified study participant preferences considering participation in physical activities. A primary incentive to participate in physical activities was having "fun"; study subjects

reported an activity to be fun if one liked the activity, if one had friends or family to play with, or if one was actively engaged and challenged by the activity. These findings align with the ideas of O'Reilly et al. (2001) and those of the experiential learning theory; if a person experiences pleasure or satisfaction in an experience, he or she will want to repeat that experience.

Study participants also reported personal barriers to physical activity, or things that made participation difficult for them. (Himberg et al., 2003) that during middle school, biological, psychological, social, cultural, and environmental barriers can develop deterring participation in physical activity. Based on findings reported in the literature review, typical barriers to being physically active include individual factors that affect participation (such as skill and fitness levels), homework, lack of time, lack of opportunity to access physical activity equipment and programs, personal priorities where physical activity is a lower priority, and influences of family and friends. Study participants expanded upon these barriers reporting that disliking a physical activity, feeling inadequate participating in the activity, fearing injury participating in a physical activity, or the competitive nature of the activity deterred their desire to play. Again, experiential learning could affect participation. Table 3 summarizes each study participant's responses considering these barriers.

During the post-*MFF* interview, study participants reported they had fun participating in the *MFF* program because they enjoyed the activities, but they also learned new games, and they met new people. Some study participants reported they enjoyed participating in *MFF* because of the unique aspects the program offered. Female study participants reported they liked the "extra attention" they received from the seven

program teacher/leaders that supported each session and liked participating in *MFF* because they rarely have the opportunity to participate in team activities outside of school. Two males study participants stated they liked participating in *MFF* activities because they were inclusive and they fostered the participation of all program participants.

During *MFF*, 23 observations were formally analyzed to assess each study participant's behavior during *MFF* activities. Observations results indicated that collectively, study participants were fully engaged in *MFF* activities 93% of the time, and most times they also displayed behaviors indicating they were enjoying the activity such as smiles, laughing, effort, cooperation, talking with peers, assisting others, and good sportsmanship. Accounts for each observation are included in Appendix J. These observations supported the responses of study participants in their pre- and post-*MFF* interviews.

Identified middle school students do not participate in recommended amounts of moderate to vigorous activity

NASPE recommends that children 5 to 12 years get at least 60 minutes (420 minutes per week) and up to several hours of physical activity a day (Kun, 2003). Adolescents should be physically active 30 to 60 minutes daily, or nearly every day, as part of developmentally appropriate play, games, sports, work, transportation, recreation, physical education, or planned exercise, in the context of family, school, and community activities (Corbin & Pangrazi, 2007). To achieve cardiovascular fitness, young people need to include three 20-minute periods of moderate to vigorous exercise in their activity

time each week. Based on pre-*MFF* interview responses, most study participants did not participate in recommended amounts of physical activity.

The MES middle school physical education program provides 80 minutes of physical education each week, most weeks of the school year. Each school day middle school students also have a 30-minute recess (150 minutes per week), a time when they can socialize and play. Potentially, a MES student can participate in 230 minutes of physical activity each week if they are active during recess time. During pre-*MFF* interviews, study subjects responded to questions about how they spent their recess and free time at home. One study subject participated in 80 minutes of physical education at school each week and did little or no activity at recess or during her free time. Another participated in 80 minutes of physical education at school each week and two 1-hour community dance classes and community softball during the spring totally about 140 minutes of physical activity most weeks during the school year and 220 minutes in the spring. Six other study subjects said they participated in at least 230 minutes of physical activity each week at school combining physical education and active recess time. Four of these subjects also reported they participated in additional out-of-school community physical activity programs, seasonally or all year long, getting two to four additional hours of physical activity a week. These study participants claimed they participated in 350 to 470 minutes of physical activity a week certain times of the school year. What is clear is most study subjects do not participate in recommended amounts of physical activity (420 minutes per week) on a regular basis and some get less than half of the recommended amount. What is unclear is the amount of moderate to vigorous exercise study subjects did during the activity in which they participated.

Participation in carefully planned physical activities enhanced the physical self-concept of the study participants

Participation in *MFF* helped study participants develop positive physical self-concepts through personal learning experiences, enhancing their self-confidence to participate in physical activities, building self-efficacy. According to Policy Studies Associates (2006) when children learn to believe in their capacity to learn, change, or maintain a behavior, they also believe they can do more. This finding aligns with Bandura's (1986) social cognitive theory, which proposes learning is affected by personal (biological), environmental, and behavioral factors, in this case participation in physical activity. Study participants learned participation in *MFF* activities had positive outcomes, and these outcomes outweighed any negative outcomes they could have experienced in *MFF*.

Study participants enjoyed *MFF* because they had fun experiencing new activities and they "felt" learning happen. One study participant stated "we definitely did new things in *MFF* … things I had never done before; it was fun." Others reported learning about using a treadmill and other exercise equipment, trying Ultimate Frisbee for the first time, trying new activities that "felt good", and how participation in *MFF* activities facilitated their participation physical education. Two study participants reported they could feel "weird" and unskilled in some activities, but they still had fun.

When asked to reflect on their *MFF* experience, most study participants reported they experienced a "personal revelation" participating in *MFF*. They realized they had a new or improved physical ability; they felt the effects of physical activity and learned it feels good to be active. Some learned what it felt like to be part of a team, while others

realized the value of practice has on motor skill development. Some realized how to set goals to enhance performance and others realized the performance can be affected by the setting they are playing in. For several study participants these discoveries acted as motivators to be physically active.

In the post-*MFF* interview, study participants realized their participation in *MFF* led to positive personal mental and/or physical changes. Mentally, one female was motivated to get her homework done faster so she could get outside sooner and play after-school. Another learned the value of being a good listener and how she could improve her athletics being a good listener. Another learned the value of being self-confident and how it affected her participation in physical activities. One male reported that he learned that his "frame of mind" or approach to participation in physical activities had changed as a result of participating in *MFF* activities; he learned how to be a "team player" rather playing for personal achievement. Another male realized he would be able to perform better and do more physical activities if he was in better physical shape.

Physically, several study participants felt their motor skills improved as a result of their participation in *MFF*. They felt they could run faster, catch better, kick better, and make more baskets. In addition, some felt they improved their cardio-respiratory endurance during *MFF*, stating they could run longer and further without stopping as compared to before *MFF*.

Participation in an exclusive fitness intervention program motivated study participants to increase their physical activity

MFF was designed with social cognitive learning principles in mind to foster positive behavioral changes, here increases in physical activity, by manipulating the environment and activities. The environment was carefully planned to accommodate the needs of students identified to lack physical fitness and students who may also lack developed motor skills and experience participating in organized physical activities. Program organizers manipulated who could participate in *MFF*. This allowed program participants the unique opportunity to participate in *MFF* activities with peers that had similar physical abilities, eliminating the "better fit" and the "better skilled".

Program activities were planned to include many of the program participants requested activities as well as new activity experiences. Activity sessions were designed to be inclusive, engaging, and fun. *MFF* participants had the opportunity to participate in physical activities without experiencing the feelings inadequacy or frustration, opening the door to learning. As reported in the review of literature, "children who possess inadequate motor skills (or physical fitness) often are relegated to a life of exclusion from the organized and free play experiences of their peers, and, subsequently, to a lifetime of inactivity because of their frustrations" (Seefeldt, Haubenstricker, & Reushlein, as cited by Graham, Holt/Hale, & Parker, 2004, p. 28). *MFF* was focused on creating activity experiences that reversed this statement.

Knowing *MFF* was an exclusive program based on invitation, study participants spoke about reasons why they joined the program. Most joined *MFF* 2008 because they looked forward to participating in *MFF* activities. Some joined because previously, they

had had a positive experience participating in *MFF*. Still others joined *MFF* for the opportunity to socialize while they participated in an after-school activity program, to improve their physical fitness, or to relieve boredom.

Considering each study participant's post-*MFF* responses and their experiences, revelations, and perceived personal changes, study participants enjoyed their *MFF* experience. They felt comfortable participating in physical activities and experienced personal gains. Observations results also indicated that study subjects were fully engaged in *MFF* activities 93% of the time and most times they also displayed behaviors indicating they were enjoying the activity such as smiles, laughing, effort, cooperation, talking with peers, assisting others, and good sportsmanship.

One of the primary goals of *MFF* was to motivate program participants to become more physically active. This study showed that each study participant expressed the desire to join new physical activity programs at school and in the community. Table 8 identifies study participant responses and desires to join a new activity program(s). In addition to joining new activity programs, some study participants were excited to share some of the activities they experienced in *MFF* with their friends and family outside of school.

Physical activities that are designed to be inclusive facilitated the participation of study participants

There is no known phenomenological research that has specifically studied students who lack physical fitness and their participation in an exclusive fitness intervention program. As previously stated, the exclusive design of the *MFF* program facilitated the participation of program participants. Keeping social cognitive theory in

mind, *MFF* activities were carefully designed using inclusive teaching strategies to foster participation. Program activities were carefully designed to encourage participation of all *MFF* participants, eliminating barriers that could deter participation. Activities challenged participants physically, cognitively, and affectively. They were designed to accommodate multiple levels of performance in ways that minimized competition and maximized cooperative participation. Often, traditional game rules were adapted or modified to engage and facilitate the participation of all program participants. Manipulating the environment and activity design allowed program participants the opportunity to successfully engage in program activities disregarding personal fitness or skill weaknesses; they simply played and felt good doing so.

If a participant felt inadequate in the participation, which did happen occasionally, it was because the participant(s) were in the beginning phase of learning a skill and they wanted to perform better. They simply needed more opportunities to practice and learn that skill. A male study participant reflected that on the day we did cupstacking using relays "I could have sworn I was the worst one out there; I learned a lot of people felt that way." Another reflected that "I don't like cupstacking… I can't do it very well…I thought I could never cup stack, but once I got the rhythm, I got used to it." The relays were kind of competitive, but they were entertaining." Both males felt overall the activity was fun. This reaction is not unusual considering skill development and was understood during a rare competitive *MFF* challenge.

Experiencing activities that fostered inclusive participation opened the eyes of two competitive male study participants. They learned that participation in physical activity can and should vary considering different activity settings. After experiencing

MFF one male study participant had strong feelings about making sure everyone could participate in physical activities in *MFF* and physical education. He made the following comments about playing tchoukball in *MFF*.

> In *MFF*, you had to pass a certain number of times before you could shoot. Most of the time in physical education, that does not happen; people just grab the ball and they run or they shoot… nobody else gets a chance to play. If you have to pass to everyone, it gives everyone a chance to play… making them feel happy and good.

Another male study participant reiterated these feelings considering his experiences playing tchoukball stating "why not let others play and have better teamwork…others can play just as good as I can." Activity settings like *MFF* or physical education should facilitate play from everyone in the group. There is a time and a place for highly skilled and better fit students to show off their talents, in athletic programs.

Middle school physical educators need to "hear" the messages this population of students is sending. As mentioned, activities should be designed to foster participation of all students. Curriculum should include a wide variety of activities that extend sequential learning of traditional physical education activities and that introduce new activity experiences. Study participants had remarks during pre-*MFF* interviews that indicated they got bored or frustrated doing the same activities year after year. In post-*MFF* interviews, each study participant stated they enjoyed learning new activities (e.g. Frisbee, rugby, team handball, wiffleball, and using exercise equipment at the university) and variations of old activities. (e.g. eclipse ball, new tag-games, dodgeball).

Study participant's pre- and post-interview responses were aligned with information found in the literature review concerning activities offered in physical education and competition in physical education activities. Allender et al. (2006)

conducted a study that showed that participation in physical education was affected by boredom with traditional sports offered in physical education, by the lack of skill competence, by over emphasis on competition, and by social perceptions that participation in sport and physical activity was 'babyish' (p. 831). Physical educators need to carefully plan activities that will motivate participation and foster affective, cognitive, and psychomotor learning in all students while integrating fitness education into daily lessons and assessments. Affectively, at the middle school level, the physical education curriculum should focus on building positive physical self-concept, minimize competitive play, and focus on making activity fun and enjoyable for all students. Lessons should focus on building good character, using cooperation, and behaving respectfully in a safe physical environment. Cognitively, middle school students should be taught the fundamental principles of physical fitness and how to use physical fitness assessment data to develop personal fitness plans that address their personal needs. Finally, middle school students should develop a large repertoire of psychomotor skills and learn the rules and strategies needed to successfully participate in a wide variety of fitness, sport, and lifetime activities. If this is done effectively, students will be motivated to participate in activities even if they are not considered the 'best' participants.

Study participants did not understand what physical fitness is or what role physical activity has in obtaining physical fitness

There is an abundance of literature that suggests that physical educators have a significant role in teaching Kindergarten to Grade 12 students what health-related physical fitness is, how it is achieved, and the physical, cognitive, and affective benefits of having health-related fitness. NASPE (2004) considers a physically educated student

as one who has the knowledge to "achieve and maintain a health-enhancing level of physical fitness" (p. 33). For elementary students, physical education needs to emphasize developing an awareness of fitness components and having fun while participating in health-enhancing physical activities (NASPE, 2004). For middle school students, NASPE (2004) suggests that "students gradually acquire an understanding of the fitness components, the ways each is developed and maintained, and the importance of each in overall fitness" (p. 33). According to Masurie, Lambdin, and Corbin (2007) during the middle school years, students should learn about the five components of fitness and how they relate to their overall physical fitness, be able to monitor exercise intensity, and be able to assess their personal fitness status considering each component of health-related fitness and use this information to develop individualized fitness goals with little help from the teacher.

In this study, study participants were MES middle school students Grades 5 to 7. During pre-*MFF* interviews, study participants were probed considering their personal knowledge and understanding of physical fitness as well as the perception they had of their current physical fitness status. Individual responses of study participants showed that despite the teaching efforts of MES physical educators, study participants did not have a clear understanding of what physical fitness is, how it develops, or the significance of FITNESSGRAM. Study participants could not accurately define physical fitness or the role physical activity has in developing fitness.

According to NASPE (2004) by fifth grade, the beginning of middle school at MES, students should be able to define what health-related physical fitness is and its five components. Considering pre-*MFF* responses, no study participant was able to do this.

Two seventh grade male study participants showed the best understanding of physical fitness in their responses. One male study participant could identify four of the five components of health-related fitness and was able to connect what he knew to his own personal fitness. A second male study participant showed he understood what health-related physical fitness is stating "whatever gender you are, whatever age you are between, you meet the healthy goal" and indirectly identified two components of health-related fitness in his response, cardiovascular fitness (running on treadmills) and muscular strength (lifting weights). This study participant however considered himself fit.

To differentiate study participant responses, the researcher took what study participants showed they knew and identified responses as "informed" or "misinformed". In addition the research identified if study participants responses indicated "accurate" or "inaccurate" perception of their own physical fitness. A study participant's response was considered informed if a majority of their response was aligned with current literature and showed some understanding of what physical fitness is. A study participant's response was considered "misinformed" if their response showed a complete lack of understanding of fitness concepts. A study participant's perception of their own physical fitness was deemed accurate or inaccurate if the participant understood they lacked physical fitness.

Results showed that 3 study participants were considered informed and 5 misinformed. The 3 informed study participants included two seventh grade males and one female in sixth grade. The males showed the clearest understanding of what physical fitness is. The female study participant related her understanding of what physical fitness

is by talking about people who were physically fit. She understood to be fit, you need to be active and her lack of fitness was associated to her inactivity.

Five study participants were considered misinformed including two fifth grade females, and two sixth grade students, one male and female, and one male seventh grade student. The responses from these study participants did not show a basic understanding of what physical fitness is or the ability to articulate differences between physical fitness and physical activity. Females considered being active to be physical fit. Participating in physical education or sports meant you were fit. Responses showed their lack of understanding differentiating between physical fitness and physical activity, for example "physical fitness is when you run around and get exercise…. physical activity is doing push-ups and pull-ups to strengthen your body." Male responses included relating physical activity to working out, physical fitness to lessons learned in karate, felt physical fitness was "running or weight lifting" , or associated different physical activities with components of fitness (e.g. "football is probably strength, soccer is running, basketball is strength and running"). Four study participants realized their physical fitness needed improvement and 4 study participants did not make this connection.

During post-*MFF* interview, study participants reflected on personal changes they experienced as a result of participating in the *MFF* program. The fifth prompt of the post-*MFF* interview asked study subjects "Have you noticed any changes in how you participate in physical activities since joining Moving for Fun?" One probing question associated with this prompt asked "What can you tell me about your physical fitness since joining Moving for Fun?" Three study subjects commented that they noticed

improvements in their cardiovascular endurance. These subjects felt their participation in *MFF* activities fostered this change.

Implications for Social Change

This study has been significant for several reasons. First, this study shows how physical fitness test results can be used to identify students who would benefit from participation in an exclusive fitness intervention program. Traditionally, yearly or bi-yearly physical fitness test results are confidentially stored in the computers of physical educators. Some physical educators report the results of health-related fitness testing to the parents/guardians of their students and/or administrators using "FITNESSGRAMS" or other informative fitness testing summaries. Using health-related fitness test results to identify a specific population of students who could benefit from participation in an after-school physical activity program is another useful way to use physical fitness test results and offers those identified to lack physical fitness an opportunity to improve on their weaknesses with other who have similar weaknesses.

Second, this study showed how a well planned exclusive after-school fitness intervention program can be used to break down internal and external barriers that typically deter pre- and early-adolescents who lack physical fitness from participating in physical activity programs. By examining the perspectives of the 8 identified middle school students considering participation in physical activity before and after participating in *MFF*, this research has gained new insight of the knowledge and attitudes of this population. It was found that study participants genuinely enjoyed participating in physical activities when they felt safe, when they could engage equally with others , when activities were fun, and when they felt learning took place. In heterogenic physical

activity settings like physical education classes, activity experiences are not always positive. Poor experiences can contribute to the choice to be inactive and reduced levels of health-related physical fitness.

Third, this study showed how communities can work together to provide students identified to lack physical fitness more opportunities to be physically active. The after-school fitness intervention program *MFF* was a collaborative service learning project connecting two educational institutions, the middle school and the university's physical education teacher education program. The middle school and university physical educators are committed to serving the needs of those identified to lack physical fitness. Each year university second-semester sophomore pre-service teachers, plan, teach and lead *MFF* as part of Secondary Methods of Teaching Physical Education. For pre-service teachers, teaching and leading *MFF* activities is a valuable experience in their preparation and that provided a vital service in the community. For physical educators and administrators at the middle school, the 7-week biweekly 2-hour after-school fitness intervention program is serviced by pre-service physical education professionals under the supervision of their university supervisor. On the larger scale, the *MFF* model can be used by other physical education teacher education programs to incorporate service learning into a pedagogical curriculum to support the needs of the community, while enhancing the professional development of the pre-service teachers.

This study has several important implications for physical educators, school administrators, and community recreation program planners. First, middle school students need more physically activity built into their weekly schedule. Since all children must attend school, schools are the obvious resource for building physical activity into

children's lives. To get the recommended amount of appropriate physical activity (420 minutes per week) physical educators and health professionals need to advocate for daily physical education and daily recess. NASPE (2004) recommends that middle school students have 225 minutes of physical education instruction each week (45 minutes each day) that ensures students have an opportunity to learn (p.5). Coupled with a 30-minute recess each day, schools that offer daily physical education could provide students with 375 of the 420 recommended minutes of physical activity each week. If schools do not take the initiative to provide more physical education and activity in to the lives of their students, the unhealthy trends of inactivity may continue. Increased amounts of physical education and activity can build a healthier child who is better prepared to succeed in other content areas.

Second, physical educators should emphasize fitness education in their curriculums starting in Kindergarten and up to Grade 12. Starting in the elementary grades, children need to be "informed movers; they need to know about and be able to apply fitness concepts to their own lives" (Gallahue & Donnely, 2004, p. 92). As students move into the middle school years they need to show they know the five components of health-related physical fitness and understand how participation in physical activities addresses each component (Masurier et al., 2007). Physical educators need to use fitness assessments as a teaching tool to help students learn how to set personal fitness goals based on their assessed levels of physical fitness. If students understand and can apply fundamental principles of physical fitness to their personal lives, they will be one step closer to becoming "physically educated".

Based on study participant responses in pre- and post-*MFF* interviews, the third implication of this study is the need for middle school physical educators to know and understand each of their students as individuals, considering his or her perceptions of personal fitness, body image, and motor skill development. Students that lack physical self-competence may feel they don't fit into physical activities settings; they may feel inadequate participating with better skilled or better fit peers and lose their motivation to participate. If physical educators do not understand these students as individuals, it may appear that they aren't trying, that they have a bad attitude, or that they don't care about physical education.

Considering the potential number of students with whom a middle school physical education teacher may work with, getting to know each student as an individual can be difficult. In smaller schools, teachers can use personal conversations and observations to learn more about each student. In larger schools, perhaps surveys, observations, and selective interviews could be used to facilitate learning more about each student. What is important is teachers get to know and understand each student's feelings and attitude towards participation in physical activities, physical fitness, personal motor abilities, and playing and working with others. With student needs in mind, physical educators need to plan activities are inclusive, safe, meaningful, and fun; activities that foster maximum participation for all students. Competition and supremacy by the skilled and fit in physical education classes needs to be minimized.

The fourth implication of this study is directed to schools and community recreation planners. Study subjects enjoyed participating in the *MFF* fitness intervention program, and most expressed the desire to participate in *MFF* in 2009. Considering the

school year is approximately 36 weeks long, more after-school and outside of school community physical activity programming is needed that is specifically directed to the needs of the less fit and/or less skilled school-aged students.

Activity programs that take place after-school or in the community typically focus on athletics. Facility scheduling usually prioritizes athletics; leaving little or no time for other programs. When suitable spaces could be available for after-school activity programs for non-athletes, often there is competition between programs for use of these spaces. School and community athletic administrators need to relook at how facilities are scheduled immediately after-school and accommodate the needs of all students, not just the gifted and talented. If schools are the best place to reach and teach children, and influence activity behaviors, more out-of school time needs to be allocated for this population of students.

Recommendations for Action

This study was conducted to learn how a population of students identified to lack physical fitness felt about participating in physical activities; physical activities offered at school during physical education, recess, after-school, or at home or in the community. Based on the results of interviews and observations of 8 study participants, conclusions and implications of this study have been made considering the research question "How do identified middle-school students perceive themselves participating in physical activity before and after participating in an exclusive fitness intervention program, *Moving for Fun*?"

Study implications have lead to the following recommendations. Some recommendations have obvious ties to stated implications; other recommendations

consider changes that will improve *MFF* in the future. Physical educators, school administrators, health professionals, parents, community recreation planners, and PETE students and faculty may benefit from the recommendations of this study.

First, schools need to consider adding more physical education and activity time to each student's school day. At a time where *No Child Left Behind (NCLB)* drives academic planning, the health and wellness of school children needs the same kind of attention. The FIT Kids Act (2007), a bill aimed at strengthening physical education and physical activity through NCLB, advocates for adding more physical education and physical activity to the daily school schedule. This may become a reality if the act is approved.

Second, following NASPE (2004) recommendations, physical education curriculum needs to include developmentally appropriate fitness education and assessment to help children understand, improve, and/or maintain their physical well-being. Conducting physical fitness testing is not enough. There needs to be a concerted effort to teach and assess student learning considering fitness education. Students need to know what health-related physical fitness is, how it is assessed, and how they can become fit. Students need to know how to set fitness goals that will correct identified weaknesses using physical activity. Finally, students need to know what role health-related physical fitness plays in the development of physical, emotional, social, and intellectual health.

Third, to effectively teach each student, physical educators need to know and understand each student as an individual. To motivate students to participate in recommended amounts of physical activity in and out of the classroom, teachers need to realize an individual's barriers and facilitators of physical activity and consider this

information when planning curriculum and lessons. By manipulating curriculum, context, and climate of the classroom, participation can be facilitated, and physical educators can improve their effectiveness as teachers.

Fourth, the allocation and use of school and community physical activity facilities needs to include programs targeted to students identified to lack physical fitness. Facility scheduling needs to balance the needs of all community members. Beyond facilities, financial and practical resources need to be shared to design, plan and manage effective after-school activity programs for these students. Support to run healthy after-school programs can be arranged with local Physical Education Teacher Education colleges and universities.

There are two additional recommendations that go beyond the parameters of this study considering *MFF* as a program. First, *MFF* can do a better job facilitating behavior changes and enhancing fitness education. Each session of the 2009 *MFF* program will include instructional activities that support fitness education. In addition concepts of healthy snacking will be incorporated into each sessions “snack time”. Instead of just using snack time to rest, rejuvenate, and socialize, principles of healthy snacking and appropriate serving sizes will be emphasized during this phase of the program.

The final recommendation of this study also involves revising *MFF* 2009 to include one or both parents and/or guardians of each program participant into the *MFF* fitness education. This will be done by incorporating parents meetings into the 2009 *MFF* program and providing developing and distributing handouts about *MFF* program instruction and activities. Parents and guardians need to understand the role physical

activity plays in physical fitness, long term health, and the academic success of their children.

Parents/guardians need to be taught how they can become facilitators of their child's physical activity and fitness. They need to understand how their and their child's choices and lifestyle can hinder participation in physical activity and affect their long-term health. If parents/guardians become facilitators of physical activity and physical fitness, they will help address the needs of identified children by providing opportunities, resources, and role modeling needed to promote increased physical activity.

This research has already stimulated interest in local K-12 schools, the state, and nationally within the American Alliance of Health, Physical Education Recreation and Dance Eastern District (AAHPERD). The researcher presented this research at the state 2008 health, physical education, recreation and dance conference and at the AAHPERD Eastern District Conference in 2009. At each convention, a forum of Pre-K-12, college, and community physical educators and health professionals have heard about the results of this study. In the near future, the researcher plans on creating articles for professionally refereed journals such as *The Journal of Physical Education, and Recreation and Dance (JOPERD)*, *Strategies*, and the *Journal of Health Education*.

Recommendations for Further Study

This research was limited to 8 students identified as lacking physical fitness and their personal interviews and participation considering physical activity before and after *MFF*. This study can be the beginning of a potential string of phenomenological studies that can be conducted on a broader spectrum of people including more middle school students, high school and college-aged students, disabled students, and adults, to gain

greater perspective and understanding about participation in physical activity. In addition, this study opens the door to conducting longitudinal research, tracking perceptions of participating in physical activity over time. Research considering this variety of groups and their views toward participating in physical activity can shed new light on how activity programs can be planned and developed to foster increases of physical activity and improved physical fitness in a larger and more diverse population of people.

The researcher is also considering conducting a mixed methods study. This study would include pre- and post-FITNESSGRAM data collections to provide quantitative data to use with the qualitative research methods used in this study. Collecting pre- and post-FITNESSGRAM data can measure the effectiveness of a fitness intervention program like *MFF*. A mixed methods study could validate and motivate the development and use of more school-based fitness intervention programs across the country providing a larger population of identified students the opportunity to improve their health.

Researcher's Reflection

This doctoral study is my first formal experience conducting research. As former secondary health and physical education teacher, I learned that developing good relationships with my students would help me understand them as cognitive, affective, and psychomotor learners, fostering learning. A successful physical educator motivates each student to be physically active on their own. Some students are very motivated to participate in physical activities and others are not. Many of the unmotivated students lacked competence in their motor skills or adequate fitness to feel good participating in physical activity.

The physically unmotivated student frustrated me! The student who would do as little as possible, find the 'invisible' place in the classroom, or look for reasons not to participate in physical education classes. Their lack of motivation became my motivation to find ways to break through the barriers that kept them from participating. I worked hard to develop strong relationships with these students, recognizing this was the first step to becoming an effective teacher. Once good relationships were developed, I would try to personalize teaching to meet the needs of the individual student, to foster their learning and motivate them to participate. This method often worked, but not always.

My research since throughout my journey through my doctorate has been focused on service learning and understanding the unmotivated physical education student. This study focused on gaining understanding of how middle school students identified to lack physical fitness felt about their participation in physical activity. When I considered using phenomenology as a research method, I knew it was going to be a challenging method of conducting research, but it was aligned with what I valued as a teacher; understanding the individual as a student.

In conducting this research, I have learned how to listen to the voices of the study participants whose responses have formulated the results of this study. This kind of research goes well beyond what a number can stand for; it reflects human feeling associated with the phenomena of participation in physical activity. Using phenomenological methods of research has shown me that phenomenology is a powerful tool to provide researchers with indepth, unbiased, and personal data to answer research questions; information that can go far beyond a simple survey response.

This study has also opened my eyes to how pre-service teachers can develop through a service learning project like *MFF*. Young pre-service teachers taught and led most *MFF* activities, many teaching for the first time. These young teachers had the opportunity to learn how to teach, assess their teaching, and focus on improving their teaching methods. Other physical education teacher education colleges and universities could follow the same model used in *MFF* to support the professional development of their students. This concept is not limited to colleges and universities. Many high schools have student leadership programs. With proper mentoring and coaching, high school students can be trained to lead similar activity programs with proper adult supervision. In a time where resources to support after-school programming is limited, university and high school students can become a valuable resource to support after-school and community physical activity programs.

Final Message

"Children are a torrent of physical activity! Unfortunately, for far too many youngsters this torrent of physical activity becomes a trickle by the time they enter adolescence" (Graham, Holt-Hale, & Parker, 2007, p. 4).

Early in life, children are a "torrent" of physical activity; they love participating in physical activity and do so whenever they can and with little or no reservations. Children need activity to thrive and grow into healthy individuals. Over time this torrent may become a "trickle" in some children as attitudes towards participating in physical activity change and there is a reduction in physical activity. Inactivity in childhood can contribute to delays in skill development and reduced levels of health related fitness. If this behavior continues into middle school, a time when students should be building social, intellectual

and physical self-confidence, a student may develop personal barriers towards participation in school-based and community physical activity programs

Using phenomenological study design, the perspectives of a small population of students identified to lack physical fitness was studied considering participation in various physical activity settings. It was found that this group of students enjoyed participating in physical activities that were designed to foster participation, allowed personal learning, and facilitated socialization. Positive physical activity experiences motivated this group of students to pursue other activity programs. This study also found that study participants did not understand of the basic principles of health-related physical fitness or the role physical activity played in building physical fitness in all people.

If schools are the best place to influence and educate young people, programs need to be carefully designed to physically educate and motivate each student, especially those identified to lack physical fitness. Physical educators, health specialists, after-school school and community program planners, parents and administrators need to hear the messages of the young people in this study. Program organizers need to relook at how activity programs are organized and managed and help create opportunities that will lead to positive lifestyle changes for school-aged students who lack physical fitness. If nothing is done, the trickling activity patterns of this population of young people may make them “old” well before their time.

REFERENCES

Allender, S., Cowburn, G., & Foster, C. (2006). Understanding participation in sport and physical activity among children and adults: A review of qualitative studies. *Health Education Research, 21*(6), 826-835.

Allison, K., Dwyer, J., Goldenberg, E., Fein, A., Yoshida, K. & Boutilier, M. (2005). Male adolescents' reasons for participating in physical activity, barriers to participation, and suggestion for increasing participation. *Adolescence, 40*(175), 156-170.

Asci, F. H. (2002). An investigation of age and gender differences in physical self-concept among Turkish late adolescents. *Adolescence, 37*(146), 365-371.

Bailey, D.M. (1997). *Research for the health professional: A practical guide.* (2n ed.). Philadelphia, PA: F.A. Davis Company.

Bandura, A. (1986). *Social foundations of thought and action.* New York: Prentice Hall.

Bandura, A. (Speaker). (2003). *Bandura's social cognitive theory: An introduction.* San Luis Obispo, CA: Davidson Films.

Barnard, S, Thygesen, L., & Joyal, P. (2005, November). *Putting physical education on your school's action plan.* Presentation at Vermont Association of Health, Physical Education, Recreation & Dance Conference. Killington, Vermont.

Bracken, B. A. & Lamprecht, M. S. (2003). Positive self-concept: an equal opportunity construct. *School Psychology Quarterly, 18*(2), 103-121.

Beck, R. (2000). *Motivation: Theories & principles.* (4th ed.). Upper Saddle River, NJ: Prentice-Hall.

Biddle, J.H., & Mutrie, N. (2001). *Psychology of physical activity.* New York: Routledge.

Brown, S., Birch, D., Teufel, J. & Kancherla, V. (2006). Overweight in children: The perspectives of 9 – 13 year olds. *American Journal of Health Education, 37*(5), 296-305.

California Adolescent Nutrition and Fitness Program (2004). *About us.* Retrieved April 8, 2007, from http://www.canfit.org/about_us.html

California Adolescent Nutrition and Fitness Program (2004). *1995 Grant Awards.* Retrieved April 8, 2007 from http://www.canfit.org/grants_us.html

California Department of Education (1991). *Caught in the middle: Educational reform for young adolescents in California public schools.* Sacramento, CA: California Department of Education.

Camic, P., Rhodes, J. E. & Yardley, L. (2003). *Qualitative research in psychology: Expanding perspectives in methodology and design.* Washington, DC: American Psychological Association.

Centers for Disease Control and Prevention (1997). Guidelines for school and community programs to promote lifelong physical activity among young people. *Morbidity and Mortality Weekly Report, 46,* 1-46.

Centers for Disease Control and Prevention (2003). Physical activity levels among children aged 9 – 13 – United States. *Morbidity and Mortality Weekly Report*, *52*(33), 785-788.

Centers for Disease Control and Prevention (2005). Barriers to children walking to or from school – United States, 2004. *Morbidity and Mortality Weekly Report, 54*(38), 949-952.

Centers for Disease Control and Prevention (2006). *Healthy youth! Physical activity: Youth and community guidelines.* National Center for Chronic Disease Prevention and Health Promotion. Retrieved from http://www.cdc.gov/HealthyYouth/physicalactivity/guidelines/summary.htm

Cervero, R. & Gorham, R. (1995). Commuting in transit versus automobile neighborhoods. *Journal of the American Planning Association, 61*(2), 210-225.

Chen, A. (2001). A theoretical conceptualization for motivation research in physical education: An integrated perspective. *Quest, 53*(1), 35-58.

Chen, A., Darst, P., & Pangrazi, R.P. (1999). What constitutes situational interest? Validating a construct in physical education. *Measurement in Physical Education and Exercise Science, 3*(3), 157-180.

Corbin, C. B. (2002). Physical activity for everyone: What every physical educator should know about promoting lifelong physical activity. *Journal of Teaching Physical Education 21*(2), 128-144.

Corbin, C. B. (2005). Keynote address: Promoting active living: The key to shaping up for a lifetime. *Vermont Association of Health, Physical Education, Dance, and Recreation Fall Conference.* November, 2005. Killington, Vermont.

Corbin, C. B. & Lindsey, R. (2005). *Fitness for life.* (5th ed.). Champaign, IL: Human Kinetics.

Corbin, C. & Pangrazi, R. (2007). *Physical activity for children: How much is enough?* FITNESSGRAM Reference Guide. Retrieved from http://www.cooperinst.org/shopping/PDF%20single/PhysicalActivityGuidelines.pdf

Couturier, L., Chepko, S., & Coughlin, M. (2005). Student voices- what middle and high school student have to say about physical education. *Physical Educator, 62*(4), 170-177.

Council of Physical Education for Children (2001). *Physical Education is critical to a complete education.* National Association of Sport and Physical Education. Retrieved from www.aaapherd.org/naspe/pdf_files/pos_papers/pe_critical.pdf.

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions.* Thousand Oaks, CA: Sage Publications.

Deci, E. L. & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior.* New York: Plenum Press.

Dewey, J. (1938). *Experience and education.* New York: Simon and Schuster.

Dishman, R. K., Washburn R. A. & Heath, G. W. (2004). *Physical activity epidemiology.* Champaign, IL: Human Kinetics.

Dudderar, D., & Stover, L. (2003). Putting service-learning experiences at the heart of a teacher education curriculum. *Educational Research Quarterly, 27*(2), 18-31.

Dunton, G. F. D., Schneider, M., Graham, D. J. & Cooper, D. M. (2006). Physical activity, fitness, and physical self-concept in adolescent females. *Pediatric Exercise Science, 18,* 240-251.

Dwyer, J., Allison, K., Goldenberg, E., Fein, A., Yoshida, K. & Boutilier, M. (2006). Adolescent girls' perceived barriers to participation in physical activity. *Adolescence, 41*(161), 75-89.

Enos, S., & Morton, K. (2003). Developing a theory and practice of campus-community partnerships. In B. Jacoby (Ed.), *Building Partnerships for Service-Learning* (pp.20-41). San Francisco: Jossey-Bass.

Ernst, M. P., & Pangrazi, R. P. (1999). Effects of physical activity program on children's activity levels and attraction to physical activity. *Pediatric Exercise Science, 11,* 392-405.

Eyler, A., Nanney, S., Brownson, R. C., Lohman, D. & Haire-Joshu, D. (2006). Correlates of after-school activity preference in children ages 5 – 12: The PARADE study. *American Journal of Health Education, 37*(2), 69-77.

Fox, K. R. & Corbin, C. B. (1989). The physical self-perception profile: developmental and preliminary validation. *Journal of Sport & Exercise, 11,* 408-430.

Farber, L, Kullina, P. H. & Darst, P. (2007). Strategies for physical activity promotion beyond the physical education classroom. *Journal of Physical Education, Recreation & Dance, 78*(9), 27-32.

Gallahue, D. L. & Donnelly, F. C. (2003). *Developmental physical education for all children.* (4th ed.). Champaign, IL: Human Kinetics.

General Mills Foundation (2007). *Champions grant recipients – 2004.* Retrieved from http://www.generalmills.com/corporate/commitment/recip_grants_04.aspx

Graham, G., Holt/Hale, S.A. & Parker, M. (2007). *Children moving: A reflective approach to teaching physical education.* (7th ed.). New York: McGraw-Hill.

Greatschools (2007). *Greatschools: A parents' guide to K – 12 success.* Retrieved from http://greatschools.net/cgi-bin/vt/district_profile/20/

Greenwood, M. & Stillwell, J. (2001). Activity preferences of middle school physical education students. *Physical Educator, 58*(1), 26-30.

Gustafson, S. L. & Rhodes, R. E. (2006). Parental correlates of physical activity in children and early adolescents. *Sports Medicine, 36*(1), 79-97.

Hale, D. (2005). An Invitation to Health. (11th ed.). Belmont, CA: Thomson Learning, Inc.

Hallal, P., Victora, C., Azevedo, M., & Wells, J. (2006). Adolescent physical activity and health: A systematic review. *Sports Medicine, 36*(12), 1019-1030.

Himburg, C., Hutchinson, G. & Roussell, J. (2003). *Teaching secondary physical education: Preparing adolescents to be active for life.* Champaign, IL: Human Kinetics.

Husserl, E. (1927). Phenomenology. (R. Palmer, Revised Translation, *Journal of the British Society for Phenomenology 2* (1971), 77-90. Retrieved from *Encyclopedia Britannica,* http://hfu.edu.tw/~huangkm/phenom/husserl-britannica.htm

Illinois Department of Education (2008). CATCH – Coordinated Approach to Child Health to be implemented in 11 more schools throughout the state. News release: April 3, 2008. Retrieved from www.idph.state.il.us.public/press08/4.3.08CATCH_Prog.htm

Kamla, J., Davis-Brezette, D., & Larson, K. (2006). The social-cognitive approach to motivation in physical education. *Strategies, 19*(5), 17-21.

Kilpatrick, M., Herbert, E. & Jacobsen D. (2002). Physical Activity Motivation: A practitioner's guide to Self-Determination Theory. *Journal of Physical Education, Recreation & Dance, 73*(4) 37–41.

Klomsten, E. M., Skaalvik, E. M., & Espnes, G. A. (2004). Physical self-concept and sports: do gender differences still exist? *Sex Roles: A Journal of Research, 50*(1-2), p. 119-128.

Kun, P. (2003). Children need greater amounts of physical activity in 2004. *National Association for Sport & Physical Education: NASPE set the standard.* Retrieved from www.aahperd.org/naspe/template.cfm?template=pr_123103.html

Lacy, A., & Hastad, D. (2007). *Measurement and evaluation in physical education and exercise.* (5th ed.). San Francisco: Pearson Education, Benjamin Cummings.

Lox, C., Martin, K., & Petruzzello, S. (2003). *The psychology of exercise: Integrating theory and practice.* Scottsdale, AZ: Holocomb Hathaway Publishers.

Maehr, M. & Braskamp, L. (1986). *The motivation factor: A theory of personal investment.* Lexington, MA: Lexington Books, D.C. Health and Company.

MacDougall, C., Schiller, W., & Darbyshirt, P. (2004). We have to live in the future. *Early Child Development and Care, 174*(4), 369-387.

Malina, R.M., Bouchard, C., Bar-Or, O. (2004). *Growth, maturation, and physical activity.* (2nd ed.). Champaign, IL: Human Kinetics.

Marcus, B., & Forsyth, L. (2003). *Motivating people to be physically active.* Champaign, IL: Human Kinetics.

Masurier, G.C., Lambdin, D.D., & Corbin, C. (2007). *FITNESS FOR LIFE*: *Middle school teachers guide.* Champaign, IL*:* Human Kinetics.

Meredith, M. D., & Welk, G. J. (2005). *FITNESSGRAM-ACTIVITY GRAM: Test administration manual.* (3rd ed.). Champaign, IL: Human Kinetics-Cooper Institutes.

Merriam, S. & Associates (2002). *Qualitative research in practice: Examples for discussion and analysis.* San Francisco: JOSSEY-BASS.

Mohnson, B. (2003). *Teaching middle school physical education: A standards-based approach for grades 5 – 8.* (2nd ed.) Champaign, IL: Human Kinetics.

Mohr, D., Townsend, J.S., & Pritchard, T. (2006). Rethinking middle school physical education: Combining lifetime leisure activities and sport education to encourage physical activity. *Physical Educator, 63*(1), 18-29.

Mostert, W. (2008). Phenomenology: Discovering new meanings of pedagogy within the lived experience. (Student work in Progress, University of Southern Queensland). Retrieved from http://www.aare.edu.au/02pap/mos02453.htm

Murcia, J. A. M., Gimeno, E. C., Lacarcel, J. A. V. & Perez, L. M. R. (2007). Physical self-concept of Spanish schoolchildren: Differences by genders, sport practice and levels of sport involvement. *Journal of Education and Human Development, 1*(2), 1-17.

Nahas, M., Goldfine, B., & Collins, M. (2003). Determinants of physical activity in adolescents and young adults: The basis for high school and college physical education to promote active lifestyles. *Physical Educator, 60*(1), p. 42-56.

National Association for Sport & Physical Education (2004). *Moving into the Future: National standards for physical education* (2nd ed.). Boston: McGraw-Hill.

National Association for Sport and Physical Education & American Heart Association. (2006). *2006 Shape of the nation report: Status of physical education in the USA.* Reston, VA: National Association for Sport and Physical Education.

National Board for Professional Teaching Standards (1999). *Physical Education Standards.* Arlington, VA: Author.

Neill, J. (2004). *Experiential learning cycles: Overview of 9 experiential learning cycle models*, Retrieved from http:// wilderdom.com/experiential/elc/ExperientialLearningCycle.htm

Netz, Y., & Raviv, S. (2004). Age differences in motivational orientation toward physical activity: An application of social-cognitive theory. *The Journal of Psychology, 138*(1), 35-48.

Olshansky, S.J., Passaro, D.J., Hershow, R.C., et al. (2005). A potential decline if life expectancy in the United States in the 21st century. *New England Journal of Medicine, 352*(11), 1138-1145.

O'Reilly, E., Tompkins, J., & Gallant, M. (2001) 'They ought to enjoy physical activity, you know?': Struggling with fun in physical education. *Sport, Education and Society, 6*(2), 211-221.

Pajares, F. (2002). *Overview of social cognitive theory and of self-efficacy.* Retrieved from http://emorgy.edu/EDUCATION/mfp/eff.html

Pangrazi, R.P., Beighle, A., Vehige, T., & Vack, C. (2003). Impact of promoting lifestyle activity for youth (PLAY) on children's physical activity. *Journal of School Health, 73*(8), 317-321.

Perry, C. L. et al.(1997). The Child and Adolescent Trail for Cardiovascular Health (CATCH): Intervention, implementation, and feasibility for elementary schools in the United States. *Health Education and Behavior, 24*(6), 716-735.

Policy Studies Associates (2006). *Everyone plays!: A review of research on the integration of sports and physical activity into out-of-school time programs.* Washington, D.C.: Policy Studies Associates, Inc.

Ransdell, L. B., Oakland, D., & Taylor, A. (2003). Increasing physical activity in girls and women: Lessons learned from the DAMET project. *Journal of Physical Education, Recreation, and Dance, 74*(1), 37-44.

Rosengard, P. F., McKenzie, T. L., Short, K., & Strelow, J. (2000). *SPARK: Sports, play, and active recreation for kids!* San Diego, CA: San Diego State University Foundation.

Rubin, H. J., & Rubin, I. (2005). Qualitative interviewing: The art of hearing data. (2nd ed.). Thousand Oaks, CA: Sage Publications.

Sallis, J. F., & Patrick, K. (1994). Physical activity guidelines for adolescents: Consensus statement. *Pediatric Exercise Science, 6*(4), 302-314.

Sallis, J. F., & Prochaska, J. J. & Taylor, W.C. (2000). A review of correlates of physical activity of children and adolescents. *Medicine and Science in Sports and Exercise, 32*(2), 963-975.

Schmalz, D. L., & Davison, K. K. (2006). Differences in physical self-concept among pre-adolescents who participate in gender-typed and cross-gendered sports. *Journal of Sport Behavior, 29*(4), 335-352.

Siedentop, D. (1999). Physical activity programs and policies toward an infrastructure for healthy lifestyles. *Journal of Physical Education Recreation, and Dance*, *70*(3): 32-35.

Smith, M. K. (2001). David A. Kolb on experiential learning. *The Encyclopedia of Informal \Education.* Retrieved from http://www.infed.org/b-e*xplrn.htm*

Soukup, G. (2007). In light of the obesity epidemic, should high school athletic departments be required to share facility space/time with after-school physical-activity programs? *Journal of Physical Education, Recreation, and Dance, 78*(5), 13-47.

Stodden, D. F. & Goodway, J. D. (2007). The dynamic association between motor skill development and physical activity. *Journal of Physical Education, Recreation & Dance. 78*(8), 33-49.

Strong, W. et al.(2005). Evidence Based Physical Activity for School-Age Youth. *Journal of Pediatrics*, *146*(3), 732 –737.

University of Texas Prevention Research Center. (2008). CATCH for improved physical activity and diet in elementary school children: Effective and successfully disseminated. *Center for Disease Control and Prevention.* Retrieved from www.cdc.gov/prc.selected-interventions/adoptable-interventions/catch-improved-ph.

U.S. Department of Health and Human Services (1996). *Physical activity and health: A report of the surgeon general.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.

U.S. Department of Health and Human Services (1997). *Guidelines for schools and community programs to promote life-long physical activity: At a glance.* Centers for Disease Control and Prevention.

U.S. Department of Health and Human Services (1997). *The surgeon general's call to action to prevent and decrease overweight and obesity.* U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General: Rockville, MD.

U.S. Department of Health and Human Services (2000). *Healthy people 2010: Understanding and improving health.* (2nd ed.). Washington, DC: Government Printing Office.

U.S. Department of Health and Human Services (2002). *Physical activity fundamental to preventing disease.* Retrieved from http://aspe.hhs.gov/health/reports/physicalactivity/

University of Texas School of Public Health (2008). CATCH physical education: Kids on the move. *CATCH: Coordinated Approach to Children Health.* Retrieved from www.sph.uth.tmc.edu/CATCH/curriculum_pe.htm.

Van Staveren, T & Dale, D (2004). Childhood obesity problems and solutions. *Journal of Physical Education, Recreation & Dance. 75*(7), 44-51.

Vermont Department of Education (2006). *State Board of Education manual of rules and practices: School quality standards.* Retrieved from http://education.vermont.gov/new/html/pgm_accountability/sqs.html

Wallenhead, T. L. & Buckworth, J. (2004). The role of physical education in the promotion of youth physical activity. *Quest, 56*(3), 285-301.

Ward, D.S., Saunders, R. P. & Pate, R. R. (2007). *Physical activity interventions in children and adolescents.* Champaign, IL: Human Kinetics.

WebMD, (2008). *Autism Spectrum Disorders Health Center: Asperger's Syndrome.* Retrieved from (http://www.webmd.com/brain/autism/tc/aspergers-syndrome-symptoms

Welk, G. J. (1999). The youth physical activity promotion model: A conceptual bridge between theory and practice. *Quest, 51*(1), 5-23.

Welk, G. J. & Joens-Matre, R. (2003). The effect of weight on self-concept, and psychosocial correlates of physical activity in youths. *Journal of Physical Education, Recreation & Dance, 78*(8), 43-46.

APPENDIX A:

MOVING FOR FUN LETTER OF INVITATION, PERMISSION SLIP, AND STUDENT INTEREST ACTIVITY CHECKLIST

February 1, 2008

Dear Parent or Guardian,

We are excited to invite your child to join '*Moving for Fun'* 2008, a collaborative service learning project presented by physical education faculty of MES and the University, and University teacher preparation students. In January 2008 you received your child's 2nd quarter MES report card, which included his/her FITNESSGRAM report. Students tested in the spring 2007 and fall of 2007 who were unable to meet any or one of the six standards (on either test date) measured by FITNESSGRAM are being invited to attend the after-school physical activity program, '*Moving for Fun'*. *Moving for Fun* is a program that emphasizes having fun participating in wide variety of traditional and non-traditional physical activities. It is a six-week program designed to motivate participation in physical activity and fostering improvements in health and fitness. The program, lead by University faculty and physical education teacher education students, meets twice a week, Tuesdays and Thursdays, from 2:30 – 4:30 p.m., March 18, 2008 to May 1, 2008. On April 22, 2008, during spring break, the University will host participants for a full day of activity and fun.

Participation in this program is FREE! All costs will be absorbed by the hosting schools. *Moving for Fun* also provides a nutritional component, linking diet and exercise to improved personal fitness. To support this, healthy snacks will be provided for participants during each session. In addition 2008 participants will receive a pedometer for tracking fitness after the program ends.

Last year, *Moving for Fun* was a great success. Over 30 student participants developed skills in tennis, pedometer use, and were exposed to many fun and unique physical activities. This year, the program will continue tennis skill development and incorporate bicycling and hiking. We hope our 2008 invitees will take the opportunity to participate in *Moving for Fun*. To reserve your child's place in this program, please return the enclosed permission slip to the school nurse, by *February 29, 2008*. We look forward to hosting your child in *Moving for Fun* 2008.

Sincerely,

Principal	Principal	K-2 PE	School Nurse
(Name)	(Name)	(Name)	(Name)
3 – 5 PE	6 – 8 PE	6-8 Health	University
(Name)	(Name)	(Name)	(Name)

Moving for Fun 2008

Moving is Fun is an exclusive after-school physical activity program designed to motivate participation in physical activities that are designed to be fun and enjoyable. Last year, *Moving for Fun* was a great success. Over 30 student participants developed skills in tennis, pedometer use, tchoukball, geocaching, and many other fun and unique physical activities. *Moving for Fun 2008* will include hiking and mountain bicycling.

Moving for Fun is lead by University faculty and physical education teacher education students. The MES *Moving for Fun* program will meet twice a week, Tuesdays and Thursdays, from 2:30 – 4:30 p.m., from March 18, 2008 to May 1, 2008. On April 22, 2008, during spring break, the University will host participants for a full day of activity and fun. (Bus transportation will be provided. A separate permission slip for the University field trip will be distributed once the program begins).

We hope all invitees take advantage of this program. As an after-school program, parental permission is required. Please separated and complete the attached permission slip below and return it to **the MES school nurse, by February 29, 2008. In addition,** please complete the student interest activity checklist and return with the permission form.

Program questions can be directed to:

Researcher
Assistant Professor of Physical Education
University (Phone) (Email)

Date: _____

I give my son/daughter permission to participate in the after-school fitness intervention program *Moving for Fun*. I understand this program will run from 2:30 – 4:30 p.m., Tuesdays and Thursdays, from March 18 – May 1, 2008 at the MES School Gym.

_____ My son/daughter will be picked by a family member by 4:45 p.m.

_____ My son/daughter will ride with _____

_____ (Parent/Guardian)

Accessible Phone number: _____

Moving for Fun 2008 Activity Checklist

The following list has a number of activities that ***can*** be offered during 'Moving for Fun'. Please check the activities that you would like to participate in during the six-week Moving for Fun Program. Some activities are weather permitting! Think 'spring'!

Team Sports
_____ Basketball
_____ Volleyball
_____ Soccer
_____ Team Handball (A game that strictly utilizes throwing and catching to score goals)
_____ Tchoukball (A unique Swedish game that eliminate defense and focuses on cooperation and team play)
_____ Ultimate Frisbee
_____ Base Games
_____ Omnikin Games (Games involving a 48-inch air-filled Omnikin ball)
_____ Floor Hockey
_____ Mass games
_____ Boot Hockey (Outside)

Individual Sports
_____ Racquet Sports (Tennis, Racquet ball, 'pickle ball', badminton)
_____ Running/Jogging

Leisure and Fitness
_____ Cup-stacking (The up- and down- stacking of specially designed cups in routines)
_____ Hiking
_____ Geochaching (GPS navigation- orienteering)
_____ Biking
_____ Yoga
_____ Pilates (Exercises that focus on stretching and strengthening large muscle groups)
_____ Stretching
_____ Dance: Hip Hop
_____ Creative Dance
_____ Strength Training
_____ Hacky Sack (Volleying a foot-sack as you would juggle a soccer ball)
_____ Snow Shoeing
Other: *Your personal suggestions!*
_____
_____
Healthy snacks you prefer: _____

APPENDIX B:

PRE-MOVING FOR FUN INTERVIEW PROMPTS AND PROBES

Prompt 1: How do you like to spend your 'free' time?
- Probe: What do you choose to do when you can do anything you want?
- Probe: When are those times?
- Probe: Where are those times?

Prompt 2: What it is like for you to participate in physical activities.
- Probe: In structured activities like physical education classes
- Probe: In unstructured activities like recess or free time after school or on the weekends

Prompt 3: What can you tell me about the kind of physical activities you like to participate in?
- Probe: What makes these activities fun for you?
- Probe: How often do you get to do these activities?

Prompt 4: What can you tell me about the physical activities you don't like to participate in?
- Probe: What is it about these activities that you don't like?
- Probe: What would make these activities more fun?

Prompt 5: What is physical fitness?
- Probe: What can you tell me about the relationship between physical activity and physical fitness?
- Probe: Tell me about your physical fitness.

Prompt 6: I am interested in hearing about your decision to join Moving for Fun
- Probe: Why did you join this program?
- Probe: What are you looking forward to most in Moving for Fun?

Prompt 7: Is there anything else you would like to say concerning how you feel about participating in physical activities?

APPENDIX C:

MOVING FOR FUN 2008 OBSERVATION ASSESSMENT

DATE: _____ Observation Number: ___ Activity Observed: _____

The following rubric will be used to assess study participant engagement, fun and enjoyment, and/or displeasure as they participated in MFF activities. Activity engagement will be assessed as 0, 1, 2, or 3 based on the criteria that follow. Activity enjoyment and fun will be assessed recording observed behaviors that indicate the study participant is enjoying an activity and having fun. Activity displeasure will be assessed recording behaviors that indicate the participant is displeased with the MFF activity.

Subject	*Activity Engagement (Indicate 0, 1, 2, or 3)*	*Behaviors indicating Enjoyment & Fun during while participating in MFF activity (Record observed behavior)*	*Behaviors indicating Displeasure while participating in MFF activity (Record observed behavior)*
Female 1			
Female 2			
Female 3			
Female 4			
Male 1			
Male 2			
Male 3			
Male 4			

<u>Criteria defining engagement</u>:

a. *Listens intently to activity instruction and directions, asking questions when unsure or volunteers responses when question is poised to group*
b. *Participates without reservation*
c. *Cooperates well with others*
d. *Shows signs of enjoyment (smiles, nods, laughs, positive body language, shows respect)*

3 = a, b, c, & d are presented in student behavior
2 = 3 of the 4 above criteria are presented in student behavior

1 = 2 of the 4 above criteria are presented in student behavior
0 = 1 of the 4 above criteria are presented in student behavior
Behavioral Indicators of enjoyment & fun while participating in activity:

- *Smiles*
- *Laughing*
- *Thumbs –up*
- *Clapping*
- *Effort shown in participation*
- *High-fives*
- *Up and down nods of the head*
- *Positive cheering*
- *Cooperating with others*
- *Talking with peers*
- *Flushed face*
- *Volunteering*
- *Assisting others*
- *Positive Verbal comments*
- *Taking risks*
- *Shows good sportsmanship*

Behavioral Indicators of displeasure participating in activity:

- *Frowning*
- *Apathy*
- *Thumbs-down*
- *Lack of effort*
- *Side to side head nods*
- *Negative cheering*
- *Lack of cooperation*
- *Refusal to participate*
- *Withdrawn*
- *Antagonizing others*
- *Aggression to others*
- *Disregarding game rules*
- *Arms crossed across the chest*
- *Eye-rolling*
- *Negative verbal comments*
- *Poor sportsmanship*

APPENDIX D:

POST-MOVING FOR FUN INTERVIEW PROMPTS AND PROBES

Prompt 1: What can you tell me about your experience participating in Moving for Fun?
- Probe: What did you like about the program?
- Probe: What did you dislike about the program?

Prompt 2: What did you learn about yourself participating in Moving for Fun?
- Probe: What did you learn about yourself while you were participating in activities?
- Probe: What did you realize after you participated in activities?

Prompt 3: How does participation in Moving for Fun activities compare to participation in physical education classes?
- Probe: How are these two experiences alike?
- Probe: How are these two experiences different?

Prompt 4: Did you experience any new activities in Moving for Fun?
- Probe: How did you feel about these new activities?
- Probe: What can you tell me about the experience of playing in these activities?

Prompt 5: Have you noticed any changes in how you participate in physical activities since joining Moving for Fun?
- Probe: What can you tell me about these changes?
- Probe: How have these changes affected your participation?
- Probe: What can you tell me about your physical fitness since joining Moving for Fun?

Prompt 6: How do you feel about joining other activity programs?
- Probe: Before or after school programs
- Probe: School or community recreation programs
- Probe: Private activity programs

Prompt 7: Is there anything else you would like to say concerning your experience in the Moving for Fun program?

APPENDIX E:

STUDY LOG

Understanding identified middle school students' perspectives regarding physical activity and fitness

Preliminary work to organize Moving for Fun (MFF) 2008 started in January 2008. FITNESSGRAM data were analyzed by physical education teachers at Middle & Elementary School (MES) and a list of potential MFF invitees was developed. This list included 12 students who passed zero of the five FITNESSGRAM assessments, 44 students that passed one, and 52 students that passed two. Invitations to join MFF were finalized and approved by a MES Principal and three physical education teachers.

One February 11, 2008 the , Co-Principal of MES read my Doctoral Proposal and granted BTMES administrative approval for this study and signed the Letter of Cooperation, which was faxed to the Walden IRB Board. He instructed me to continue organizing and planning MFF 2008 with MES and the University students and we reviewed next steps once the study was approved. Pre- and post-MFF interviews would be conducted during study participants physical education classes in a reserved conference room.

On February 19, after several weather delays, 56 invitations were mailed to students who passed zero or one FITNESSGRAM assessment. The original due date for responses, February 22 (the Friday before a ten day winter break) was extended to March 4. Three invitations arrived on or before February 22. On Sunday and Monday, March 2 and 3, 20008, I made phone calls to explain MFF and remind invitees to return MFF permission slips on March 6, the first day back to school, if they were interested in joining the program.

One March 4, 2008 the Walden IRB Board approved this study.

STUDY PROCEDURES BEGIN: On March 6, 2008, 18 students committed to joining MFF 2008. From this pool of students, eight names were randomly drawn by a faculty member of the University; 4 males and 4females as potential study subjects. Rather than mailing letters home to potential study participants, I called each family on March 7 and 8, 2008, at home and spoke directly to a parent and the student about the study. All potential study participants responded favorably and letters of consent and assent were e-mailed or personally delivered to each study participant and their parent. Assent and consent forms were returned directly to me or to the school nurse in sealed envelopes with my name on them.

Pre-Moving for Fun Interviews (Summary Table)
Female Subjects = F
Male Subjects = M

Date	Study Subject	Time	Location	Length of Interview
March 12, 2008	F1	10:00 a.m.	Conference Room	15:14
March 12, 2008	M1	12:45 p.m.	Conference Room	17:40
March 12, 2008	F2	1:35 p.m.	Conference Room	13:22
March 13, 2008	F3	9:05 a.m.	Conference Room	10:05
March 13, 2008	F4	10:00 a.m.	Conference Room	8:55
March 13, 2008	M2	11:50 a.m.	Principals Office	11:52
March 13, 2008	M3	12:45 p.m.	Conference Room	16:34
March 14, 2008	M4	10:00 a.m.	Conference Room	11:47

3/12/08: I was so excited to start interviews! I used an Olympus WS-321M Digital Voice Recorder, which worked very well. I met each student at the beginning of their physical education class (after they changed), interviewed them, and then escorted them back to class. All three pre-MFF interviews were conducted in the second floor conference room at MES. After introducing or re-introducing myself, I allowed each participant to review the pre-MFF prompts and probes. When the student was ready, interviews began. Each interview was digitally recorded. F1 and M1 both were acquainted with me, as they participated in MFF 2007. This was my first meeting with F2. Interviews occurred without disruption and after each interview was completed, I talked briefly with the student and then escorted them back to physical education class.

> F1 Interview: Went well. Study participant was relaxed and seemed comfortable answering the questions.
> M1 Interview: M1 is very elaborate when he speaks. He puts a lot of thought into his responses and at times, he can get off-track in his responses.
> F2 Interview: F2 appear excited and easy to talk with. She is a happy, bouncy child that moved and fidgeted constantly throughout the interview.

3/13/08: I put a new battery in the digital recorder today to make sure I would not run out of battery life. Four pre-MFF interviews were conducted, three in the same conference room I used yesterday, and one in the middle school Principals unoccupied office. I used the same procedures that I used yesterday in relation to meeting each student, moving to the interview area, interviewing them, and escorting them back to class. This was my first time meeting all four study participants. I am starting to realize, these students do not understand the relationship between being physical active and being physical fit.

> F3 Interview: F3 was initially shy, seeming a little unsure of what was going on. Once the interview started, she relaxed and I think we both enjoyed our

discussion. I am confused why F3 was recommended to join MFF as she appears to be fit and I learned she leads an active lifestyle.
F4 Interview: F4 was initially shy and has a soft, quiet demeanor. She was a little hesitant in her answers, as if there was a right or wrong response, and at times was very brief.

M2 Interview: M2 was very nervous and awkward during the interview. Initially, he seemed OK, but as I interviewed him, I realized that might be issues I needed to learn more about. He seemed immature, made minimal eye contact with me, made odd comments and before the interview was done he asked if he could go back to class. I stopped recording and walked him back. He walked well ahead of me, as if he was in a hurry to get away from me. I learned after the interview that M2 has Asberger's Syndrome. When I has spoke to his mother on March 8th, she was very excited for him to be part of MFF and did not disclose his disability. The school nurse and behavior specialist who works with the MFF program also knew M2 was joining MFF and was going to be a study participant as well. When I asked questions after the interview today, they disclosed M2's disability and felt the experience of participating in MFF and the study will be a good experience. If they believe he can work well with the other students in the program, I am happy to have him join us.

M3 Interview: This interview went very well. F3 was very relaxed talking with me and seems like a very nice young man. This will be F3's first experience with MFF and I look forward to working with him.

3/14/08: Yesterday was a long day of interviewing! I replaced the battery again today and conducted one interview. I used the same format I have been using. I met the student in PE class after he changed, we did our interview in the conference room, and then I walked him back to class.

M4 Interview: This interview went well. The student was acquainted with me; he participated in MFF last year. He was relaxed and easy to talk too, although I noticed he does not like to make eye contact.

All eight pre-MFF interviews are complete and I plan on starting transcribing over the weekend. MFF starts on Tuesday next week, so I need to focus on the program starting off smoothly.

3/15/08: I started to transcribe F1's interview using Natural Speak. Natural Speak did not pick up my voice from the recorder so I have to 'parrot' the recordings into Natural speak to transcribe. I transcribed about six minutes of F1's interview today and will try to continue tomorrow. Between fiddling around with the recorder and Natural Speak and figuring out a process that worked, this took a couple hours. This is going to take longer than I thought!

3/16/08: Today I finished transcribing F1's pre-MFF interview. Her interview was over 15 minutes and it took me two more hours to transcribe it. This is all I could get done today; I need to get ready for classes tomorrow.

3/17/08: University students returned from spring break and started classes. I have not transcribed since Saturday. I spent yesterday and today organizing things for tomorrow.

3/18/08: First session of MFF. All 20 students who enrolled in the program showed up! Today I did not collect any data other that attendance. I started of the program with a review of program rules and expectations and we got right into activity. The University students did a good job teaching and leading activities for the first time and working with the students; although one good not come due to a work conflict. I covered his spot and led pedometer activities which actually worked out well. MES participated in a name game to get to know each other, Smugglers, Team Handball, Ultimate Frisbee, and Pedometer games. Each student was given a pedometer, taught how to use it, and an activity log to maintain. Students that monitor their activity over the course of the six week program will be eligible for a special prize. Once in a while, MES students needed to be reminded to quiet down and listen, but overall they enjoyed the activities and seemed to have a good time.

3/20/08: Second session of MFF. Full attendance today, although two students came one hour late because they are mentors in the homework club. I was told this would happen every Thursday. Other than attendance, I did not collect any other data today. I want the program participants to be comfortable before I start videotaping or taking pictures. Today University students taught and lead a tag game, bowling-pin dodgeball, keep-a-way basketball, and team handball. Although very chatty, students liked the activities. M2 did have a problem in team handball; getting frustrated with the University student teachers. The student teacher played a slightly different version of team handball than on 3/18 and M2 showed his frustration to the new rules. RH worked with M2 to help him understand games can be played different ways. This was the only problem for the day. M2 worked well in all the other activities and is friends with M1.

3/21/08: I managed to transcribe M1's interview after work. The process is work itself out and I am getting more efficient. M1 also was easier to 'parrot'. Over all, his 17 minute interview took me a little over three hours to transcribe. Once I get all the interviews completed I will have study subject member check the transcripts.

EASTER WEEKEND: Did not work on study.

3/24/08: Transcribed F2's interview.

3/25/08: Third session of MFF. Today 18 students attended MFF. When students are absent I have to check with main office and make sure the student is safe. All study subjects were present. I took some digital pictures today. Interestingly, several students want their picture taken. F1 is one, but then she wants them deleted if they don't meet

her approval. The activities for today were twisted tag, eclipse ball, a soccer "eggs in the nest" and modified volleyball. I stopped the PE 342 students a couple times to remind them to get the group quiet and the MFF group to listen to instructions. Everything went well today. The MFF participants really liked eclipse ball because it something new for them to try and fairly easy to learn. The ball is large and light making it easier to hit. Volleyball was hard for the group; they don't have the skills or ability to keep a volley going very long. I am really curious why F3 is in MFF; she is very athletic and skilled and excels in most activities. M1 and M2 feed off each other, and at time I think M1 wants to impress M2. M3 is very skilled at cup-stacking. He asked to show his talents, so I got him a set up cups and he 'performed' for the group. His skills are very impressive!

3/26/08: Transcribed F3's interview.

3/27/08: Fourth session of MFF. Today 19 students participated in MFF. M4 was absent from school and MFF. Again, I took digital pictures of student participating in activities. Today the kids played freeze tag, bowling pin soccer, tchoukball, and 3-3 basketball. Everyone seems to be playing fine together and enjoying activities. The MFF participants liked the tag game. The bowling pin soccer game was confusing at first for sum, put they figured it out as they played. MFF participants needed to be reminded how to keep the ball low on their kicks. Tchoukball was new for some students. Student in grades seven and eight played last year in MFF or in PE. The PE 342 student leader did a nice job introducing the skills of the game but to many drills leaving minimal time to play the actual game. 3-3 basketball was new for many students. PE 342 students did a nice job working with groups as they played and learned the rules. Many MFF participants are afraid to shoot the ball when they get the opportunity. They also lack dribbling skills to get to an open sport to pass or shot. M2 struggles once in a while and RH steps in to help when he has a problem. RH usually has a quiet conversation with M2 and then M2 resumes participation. M2 is quite strong and can be intimidating because he can throw harder and is bigger than the other students. He is also not afraid to question the University students. All the other study participants play well with the other students in the program. F1 I have noticed has stopped wearing sneakers. She did the first two sessions, and now (the weather is warmer) she is wearing colorful clogs. I have asked her to please bring sneakers.

3/28/08: Transcribed F4's interview.

3/29/08: Transcribed M2's and M3's interviews.

3/30/08: Transcribed M4's interview.

4/1/08: Fifth session of MFF. Today one student dropped out of the program. She was not a study participant and her mother felt homework was more important. A second student was absent, a non-study participant. He is having trouble with his diabetes. Today in MFF the kids played a follow-the-leader game, did stations with various

activities, played tchoukball a second time, and played ultimate ball. The students really enjoyed the warm-up game and the stations. The stations were well chosen offering students the opportunity to work on skills and fitness in subtle ways. Tchoukball was played a second time this time with more of a focus game play rather than skills and drills. M2 had a problem because he wanted to play the game and not do the drills the university student was trying to lead. He sat out for a while, RH talked to him and when game play started, he rejoined the group. The other students don't seem to pay much attention to M2 and stay involved in the activity. University students slide into his spot when he leaves an activity.

In ultimate ball M1 and M2 needed reprimanding. The activity itself was well set up and managed and despite M1 and M2 behavior, the participants played the game well. M1 was acting obnoxious, yelling when students were trying to catch the ball to get them to drop the ball. He stopped when he was told. M2 got confused with the rules of the game, got frustrated and left the game for a few minutes. RH met him in the hall, spoke with him a few minutes, and he returned and finished the game. In the future, M1 and M2 will be split up whenever possible.

I videotaped tchoukball and ultimate ball to collect observation data. When I video-taped I end up collecting data on the same group of participants because I follow them through the activity sessions. This allows me to observe the PE 342 students too. Six study subjects were videotaped while playing ultimate ball and tchoukball.

4/3/08: Sixth session of MFF. Today 15/19 students participated in MFF including study participants. All study subjects were present; other MFF participants who were absent had appointments, were sick, or had a lot of homework. The activities for today included a game called Vanishing Bean Bags, Frisbee baseball, full-court basketball, and a Canadian game, bordenball, a game that resembles team handball. I videotaped the two activity sessions, Basketball and boardenball.

The warm up and mass game sessions went well and everyone seemed to enjoy them. In basketball, M2 showed frustration working with team members and following the rules of the game. The game was modified to facilitate participation. He did not like the fact that before a basket could be made, the ball needed to be passed to every person on the team. F4 got frustrated with M2 as they were on the same team and M2 did not want to pass her the ball. She was open, had not received the ball yet and let M2 know he was not playing right. The PE 342 student tried to resolve the problem, but M2 quit playing and the PE student teacher took his place. RH spoke to M2, and after a few minutes, he rejoined the game. MFF activities are often modified which frustrated M2 because of his AS. In bordenball, M2's frustration turned to aggression. He intentionally threw the ball at people, not at the goal and was warned to change his behavior or he would be removed from the game. He removed himself from the activity. RH took him for a walk for the rest of the session. After MFF was over, RH and I discussed the future of M2's participation in MFF. His aggressive behavior is intimidating the other participants in the program and safety is becoming and issue. RH explained M2 negative behavior was escalating each day and a meeting was being scheduled to discuss M2's overall behavior at school along with what was happening in MFF.

4/8/08: Seventh session of MFF. The program now has 18 participants. M2 is no longer in the program. He was suspended from school for behavioral reasons and after a meeting on April 7, 2008, it was decided that it would be in M2's best interest, as well as other program participants, to withdraw from the program. RH informed me of this via email. After discussion, it was also decided that M2 would no longer be part of this study. Part of M2's problem with MFF was he was being forced by his mother to participate and along with his AS it was too hard for M2 to behave properly.
Today 15/18 students participated in MFF. M4 was the only study participant absent. The activities for today included a great follow the leader activity, 'In the boat- in the water', a cooperative problem solving team activity called "Cross the river", volleyball tennis, and a game called 'Scoot-n-shoot'. The kids played well together today and really enjoyed the variety of activities the University students planned. Scoot-n-shoot was a big hit! With the absence of M2, there seems to be a more relaxed environment and a sense of relief. Nothing has been said to the group about M2. RH and I discussed that if a student asks about M2 absence, he will tell them he is no longer part of the program.
The PE student teacher videotaped the first two activities, "In the boat-in the water" and "Cross the River" and observation data was collected on six of the seven remaining study participants. "In the boat- in the water was a great game for kids to play. It was simple, involving only listening and jumping skills; still it challenged the kids as they competed with their peers to be better responders to commands. I videotaped tennis and the "Scoot-n-shoot" game, recording F3 and F4 as they played. Tennis was hard for the student as they lack the ability to control the ball when they hit it. This made the game a little slow. I discussed the value of small-sided games with the PE 342 teacher leader and we stopped the activity and made two games from the one original game. This helped get more kids involved. The "Scoot-n-shot" game was awesome. The participant's were laughing and worked hard as they played. It was fun to watch everyone drag their carpet with their foot as they moved around the court.

4/10/08: Eighth session of MFF. Today 16/18 students attended MFF. F4 and M4 were absent. Checking in with the main office it was found both students went home on the bus. F4 forgot about MFF and I learned that M4 didn't feel like attending MFF today; he wanted to biking with his friends. Today was absolutely beautiful out, sunny, warm; one of the nicest days so far this spring. I called M4 at home and talked with him about MFF since he has missed two sessions in a row. He has no problems with the program he just wanted to play with his other friends today. M4's parents were not aware he missed this week's sessions of MFF and were quite thankful that I called to talk with M4.
Today the kids participated in Hoop basketball, "Spiders and Flies", Frisbee basketball and volleyball. I taught Hoop basketball as a PE 342 student was absent. The warm up and mass game went well. We switched "spiders and flies" with hoop basketball because the tag game was a better warm-up. We kept all the kids together for all sessions, a decision the university students felt would facilitate their activities. This worked well. I videotaped Frisbee basketball and volleyball and was able to observe and record all six study participants as they played. Frisbee basketball was hard because the students do not have great throwing skills. They can catch better now, but it was hard to get the Frisbee to go through the hula-hoop. A large hoop would help facilitate play. Volleyball

was hard to for the same reasons. Students have weak skills which makes it difficult to keep the ball in play. The game was modified adding a one-bounce rule which helped facilitate play and keep the game moving.

4/15/08: Ninth session of MFF. Today 14/18 students participated in MFF. M1 and F4 were two of those who were absent. M1 went home sick from school today. This is F4's second absence and it was found that she went home afterschool because she had a lot of homework. Today's activities included a warm up game called "Admiral's Tea Party", outdoor stations (wall tennis, Frisbee catch, jump roping, and juggling), wiffleball, and "Doctor" dodgeball. Again, students participated in the activities as one large group. We had a space conflict with the main gym; the drama club wanted the gym to rehearse a play, but MFF had it reserved. The drama teacher and I negotiated the use of the facility and since the weather was great outside, after the warm up game, MFF moved outside. Stations and wiffleball took place outside; "doctor" dodgeball took place in one of the smaller gyms in the building.
The students liked getting outside. I took digital pictures of the station activities and video recorded wiffleball and "doctor" dodgeball. I collected observation data on six of the seven study subjects. I was surprised that many of the younger students said they have never played wiffleball at home or in PE; some had only played tee ball and were not sure they could hit a pitched ball. The PE 342 teacher leader pitched to the students which really facilitated the activity. He also modified the rules so everyone batted equally and had a chance to succeed. "Doctor" dodgeball was also a new experience for most students. They loved the game because where there was constant action! I was surprised at some of the student who volunteered to be "doctor's" knowing they could get hit with the ball. This part of the game was not a problem for anyone as the ball was soft and most cannot throw the ball that hard. Students liked the games today and they are getting along very well; everyone seems relaxed and appears to be having fun.

4/17/08: Tenth session of MFF. Today 17/18 students participated in MFF; all study subjects were present. This was the last session of MFF before spring break. The kids warmed up with "freeze" dodgeball , played "tigerball" and two frisbee games, frisbee keep-away and "zone" ultimate frisbee. Dodgeball was played inside, and tigerball and the Frisbee games were played outside. The weather outside was warm and sunny.
The kids were especially chatty today making it hard for explanation and instruction before play. I spent some time during the first two activities finalizing the field trip participant list and verifying the bus and supervision. I did not get to see the dodgeball or tiger ball activities. RH, the student teacher, and health teacher supervised these activities.
I video-taped the two Frisbee sessions taught today collecting data on all seven study participants. Both university students who lead the Frisbee games struggled a bit with the organization and management of their activities. In the first Frisbee game, the University student planned well but chose a space to play that was too small for the number of students playing at one time. This was frustrating for the kids as they played, so I intervened, expanding the boundaries. This opened up the game. M1 did not play the whole time in the first Frisbee game, saying his legs hurt and he still did not feel well. It

was a fairly hot day (80 degrees) and sunny which in very unusual for this time of year in Vermont. The second Frisbee game was also set up a space that was too small and it also had complicated rules. The students did not like this activity which resulted in requests to sit out, to go in for drinks, to use the bathroom and other excuses not to play. F1 was the only study subject that did sit out part of this activity. She said her eyes bothered her from the sun and she was tired. At the end of MFF I gave final instructions for field trip that would take place next week's during spring break. I had to stop a few times to quiet the students down, and in the end I held five students back to talk to them about their constant interruptions. F2 was part of this group.

4/22/08: Moving for Fun Day at the University. Today 15 students participated in MFF activities. M3 did not attend due to a planned family vacation. Students arrived at the University at 9:30 a.m. and stayed until 2:30 p.m. We used the main gym as our central location and for some activities. We also used the campus museum, fitness facilities, and swimming pool. Everything went great! The University students did a great job planning activities and MES MFF students enjoyed their day. I took digital pictures throughout the day, capturing participation in cooperative games, fitness training, orienteering and garbage ball. MFF students participated in cooperative team activities, used the aerobic and weight rooms, practiced orienteering across the campus, visited the University museum, played garbage ball, and went swimming. At the end of the day, which was warm and sunny, students had ice cream while waiting for the bus.

4/29/08: Eleventh session of MFF. 14/18 students participated in MFF today. F1, F3, and F4 were absent. F1 and F3 went home because they had a lot of homework; F4 had to go to a family funeral. The fourth student that was absent has been struggling with diabetes throughout the program. Today the students participated in pac-man tag, cup-stacking relays, "battleship" dodgeball, and capture the flag. Due to the smaller number of participants and the games University students planned we kept the group together during all of the activities. The students liked the activities today, especially pac-man tag and capture the flag. I had never seen pac-man tag and it was fun in interesting to watch the students play. I lead the cupstacking relays as a PE 342 student called in sick. I think the student liked the relay; I tried to vary each relay and alternated up-stackers and down-stackers. One MFF participant really struggled moving through the relays and with cupstacking caused long delays. His teammates got a little frustrated as some were quite competitive. The PE 342 student could have done a better job motivating team support and coaching the weaker student. When I noticed the frustration, I started giving options for completing relays except for how cups would be up-stacked or down-stacked.
I videotaped "battleship" dodgeball and capture the flag collecting observation data on F2, M1, M3, and M4. "Battleship" dodgeball needed to be adjusted from the original planned game. The "battleships" were set to far apart originally and when students ran across the mats, the pins fell without getting hit with the ball. The PE 342 students worked together to modify the game for success along with some MFF participants. This was great to watch! The MFF students enjoyed seeing the game transform successfully. Capture the flag was a great activity choice too. The fifth grade students were the only ones that needed to learn the game; everyone else knew it from PE. The university

students played with MFF students, RH, and the student teacher. Everyone worked well together strategizing ways to organize prison escapes and to capture the flag. The MFF participants really liked playing with the adults!

5/1/08: Twelfth session of MFF. Today was the last session of MFF. 14/18 students participated in activities. F4 did not attend because she had to go to CSI club today; it was the first day of the CSI club and she felt she had to go rather than do MFF. I was disappointed in her decision, but there is not much I could do. M1 joined MFF at 3:30 because he had to stay after school and work with a teacher before MFF. I had to leave early (3:00) today because the student teacher who has been working with MFF was being honored at the university as the 'Student Teacher of the Year'.
MFF student participated in a dynamic warm up, capture the flag, indoor soccer, and rugby activities. After the warm up activity, I gathered the group, said my closing remarks and gave out MFF certificates. I also collected pedometer activity cards from two MFF participants. The two students received a tee-shirt and specialized ball for completing the seven-week activity log. For the rest of this session, RH and the health education teacher supervised PE 342 students as they lead activities and MFF participants. According to RH and the University students, everything went fine. Students enjoyed the ice cream snack I left for them!

5/2/08: Arranged for post-MFF interviews for next week. Students will meet with me during physical education classes. I have reserved the BTMES conference room for as many interviews as possible. On Thursday, I will need to use an office in learning services on Thursday morning as the conference room is already booked.

Date	Study Subject	Time	Location	Length of Interview
May 7, 2008	M1	12:45 p.m.	Conference Room	17:15
May 7, 2008	F2	1:30 p.m.	Conference Room	12:51
May 8, 2008	F3	9:00 a.m.	Office Space	11:12
May 8, 2008	F4	10:00 a.m.	Office Space	12:04
May 8, 2008	M3	12:45 p.m.	Conference Room	13:24
May 9, 2008	M4	10:00 a.m.	Conference Room	14:06
May 12, 2008	F1	9:00 a.m.	Conference Room/ office space	15:35

5/7/08: Two post-MFF interviews took place in the reserved conference room. I added two questions to the prompts and probes to obtain student feedback about the program. These questions were "What suggestions do you have for improving MFF next year?" and "If you get invited to MFF next year, do you think you would join?" These questions will not be used in this study.

F1: F1 was scheduled to do her post-MFF interview today. Due to her absence from school the interview was re-scheduled for May 12, 2008.

M1: I met M1 at PE and we walked up to the conference room. M1 reviewed the prompts and probes for the post-MFF interview and when he was ready we started. The interview went well. M1 is very pleasant to talk to and he is very thoughtful in his responses. At the conclusion of his interview, I explained the next steps in the research process and walked him back to class.

F2: I meet F2 at PE and we walked up to the conference room. After some casual conversation, F2 examined the prompts and probes for the interview and we got started. The interview went well. After the interview I explained the next steps in the research process and walked F2 back to PE class.

5/8/08: Three post-MFF interviews took place, two in an office space in Learning Services and one in the reserved conference room.

F3: I met F3 in PE class and walked her to the Learning Services office space we used. She asked why we weren't in the conference room and I explained someone else had reserved it ahead of me. Once we were settled, F3 reviewed the post-MFF prompts and probes and we got started. The interview went quick but F3 was thoughtful in her responses. I think she wanted to get back to physical education because they were doing the spring FITNESSGRAM assessments. I assured her she would be able to make up any assessments she missed. After the interview I explained next steps in the research process and walked her back to class.

F4: I met F4 in PE class and walked her to the Learning Service office space for our interview. F4 also asked why our space was changed, and gave the same explanation as I did to F3. F4 reviewed the post-MFF prompts and probes and I conducted the interview. Afterwards, I explained the next steps in my research and walked F4 back to class.

M3: I met M3 in PE class and walked him to the conference room. M3 reviewed the prompts and probes, had no questions, and I conducted the interview. M3 is very easy to talk with and I really enjoyed this interview. After the interview we stayed and chatted about his passion, cup-stacking, for a few minutes. Then I explained the next steps in the research process and I walked him back to class.

5/9/08: One post-MFF interview

M4: I met M4 in PE class and walked him to the conference room. M4 reviewed the post-MFF prompts and probes and when he was ready, we started the interview. The interview went well and after I explained the next steps in the research process, I walked him back to PE class.

5/12/08: One post-MFF interview

F1: I met F1 in PE class and we walked to the conference room. F1 reviewed the prompts and probes and when she was ready I started the interview. About 2 minutes into the interview, we were interrupted by a guidance counselor who asked us to move our interview as the conference room was needed for NECAP testing. I explained we had reserved the space and what I was doing, but he insisted that he needed this space. Guidance needed the space for students with learning differences who were taking the tests. F1 and I moved to a student work space in the same office suite, and started the interview over. When we got to prompt 3, we got interrupted a second time! Again the guidance counselor said he needed this space, and this time we were placed in the office area. I asked F1 if she wanted to reschedule the interview. She said no, she was fine having her interview in new space we were given. This time, we resumed the interview where we left off and had no more interruptions. One person did walk through the area; F1 continued her response as if nothing happened and no one else was around. Considering the interruptions, the interview went well. Afterwards I explained the next steps in the research process and I walked F1 back to PE class.

Between 5/12/08 and 5/20/08 all post-MFF interviews were transcribed with the support of Dragon Natural Speak. I also spoke the PE teachers at BTMES about taking study subjects out of class one last time to member-check their pre-and post-MFF interviews. The conference room was booked indefinitely so we used various quiet spaces around the building where students could read and review their transcripts. If transcripts accurately expressed student responses in the interviews the study subject signed the transcript and indicated it was accurate and true as written. Any changes in the transcripts were initialed by the study subject and then signed "with edits this is 'true' or 'accurate'".

5/21/08: Pre/Post MFF interviews member checked with three study subjects

F1 (2:00 p.m. – Empty cafeteria)
F4 (10:00 a.m. - Empty Principals Office)
M1 (12:45 p.m. - Chairs in Main Office, outside Principals Office)

5/22/08: Pre/Post MFF interviews member checked with three study subjects
F2 (1:30 p.m.- In empty gym)
F3 (9:00 a.m. - In empty gym)
M3 (12:45 p.m.- Outside at picnic table, no one else around)

5/23/08: Observed study subjects using video recordings, noting behaviors during play. (At home; evening)

5/25/08: Observed study subjects using video recordings, noting behaviors during play. (At home; day/evening)

5/26/08: Observed study subjects using video recordings, noting behaviors during play. (At home; day).

5/27/08: Pre/Post MFF interview member checked with one study subject.

M4 (10:00 a.m. – Outside at picnic table, no one else around)

5/27/08: Observed study subjects using video recordings, noting behaviors during play. (At home; day/evening)

APPENDIX F:

SAMPLE PRE-MFF INTERVIEW TRANSCRIPT

Interview is for Female 2: (13:22)
R = Researcher
F2 = Female subject 2

R: Today's March 12, 2008, at 1:45 p.m. This is female subject 2.

F2: Hi my name is 'Female 2', I am in fifth grade, and I am 11 years old. I like to play lots of sports, like hockey and softball and lacrosse.

R: We are to go through the prompts were this interview; there are seven prompts. The first prompt is how do you like to spend your free time?

F2: I like to play in the snow. I like to free dance, and play hockey in the snow. I like to play kickball in the snow, that's about it. I like to read also in my free time.

R: How about when there's no snow?

F2: When there's no snow, I'll be biking, walking, playing on the playground 2000, being over at my friends ....

R: If you can choose whatever you want to do, what is your favorite thing to do?

F2: Probably, playing hockey.

R: What kind of hockey do you play?

F2: I play all kinds of hockey. I play ice hockey, street hockey with my brothers sometimes, but they're older, so I play with my friends.

R: What is your favorite position?

F2: I would have to say goalie.

R: Playing goalie is a hard job! How often do you get to play hockey?

F2: I play almost every day for three to four hours.

R: Wow! Good for you! Do you live in a place you can just go out and play?

F2: I live in an apartment, but I have a huge backyard. So yeah!

R: Excellent! Do you do most of your play a home?

F2: Well not really, but everywhere.

R: What else do you do with your free time?

F2: I read for it least five minutes a day, at night. I have to read for 20 minutes before I can go outside.

R: You don't watch TV or play on the computer?

F2: Yeah, I do that on my weekends. I only get to play on it for certain amount of time, an hour for the weekend. I like going out so much that I only really get an hour on the weekend to play on the computer.

R: Good! That's very interesting. The second prompt asks, what is it like for you to participate in physical activities?

F2: It's really fun I get to teach my friends how to play hockey.

R: Do you have your own stick?

F2: Yes

R: Tell me about what it's like to participate in structured physical activities like physical education class?

F2: It's really fun because now are working on gymnastics, and that's my second favorite thing to do. We're working on balance beams and my teacher is teaching us how to keep our balance. Now are doing cartwheels, off the balance beam. My teacher likes spotting us and teaching us. It is really fun.

R: Are there any other structured activities that you do besides physical education? Like you joined a community team....

F2: I did do softball; I want to sign up again next year. I did soccer too…

R: Do you still do those sports?

F2: I still play softball, but I did not play soccer this year, I played last year.

R: Your free time in recess, how do you spend that?

F2: We play tag, we run around. Sometimes I play kickball; I don't really sit around much.

R: What can you tell about the physical activities that you really like?

F2: I really like to participate in gymnastics, hockey, soccer and lacrosse. I'm trying out for lacrosse next year.

R: Do you have a lacrosse stick?

F2: No, but I am going to borrow one. Sports runs in my family and my cousin Eric, he plays lacrosse. He is going to pass his stuff down to me.

R: Nice! What makes hockey, soccer, playing tag fun?

F2: You get to do be on your feet and be active. It is really fun because you can play with your friends at the same time and be healthy and not have to worry about sitting around. When I sit around, it is no fun, when you're just sitting around like reading, that's when I like to get up and play with my friends a lot.

R: I'm just curious, do you do any craft activities when you're home?

F2: Yes, I like drawing; that is my second favorite thing I do when I have to stay inside. Probably only things I stay inside to do is my homework reading as those of things I really have to do. And then I go outside and play, because I really don't want to be inside watching TV. Being outside is more fun.

R: What can you tell me about physical activities and that you don't like to participate in?

F2: I don't really like snow shoeing. I don’t like doing it but the snow shoes give me a hard time. They keep falling off. I like doing it, but at it is a pain in my butt, because the teacher has to help me get my snow shoes on. I don't get them on right in the first place, and she has to tighten them, and then they still keep falling off. When I fall, they just fall off. That's probably the hardest part, but I kind of like doing it.

R: It sounds like you need to figure out how to adjust the bindings. Are there any other activities that you don't like?

F2: No not really.

R: What would make snow showing more fun?

F2: Keeping my snow shoes on. And having more snow that sticks…

R: It has been icy lately. Is this the first year you been snowshoeing in physical education?

F2: No, we've been doing it for about three years.

R: Here is another question, what is physical fitness to you?

F2: Physical fitness is probably like…..do you want it to say the sports?

R: Describe what you think physical fitness is….

F2: I think it's probably getting kids out to exercise, maybe. Like getting them to run around and learn to play basketball or do fun things while ending up off your feet and exercising.

R: What can you tell me about the relationship between physical activity and physical fitness?

F2: Physical activity. You're still on your feet and with the other one, physical fitness..... both ways. You can be up on your feet doing something you're not really sitting down. It'll probably be having fun. Maybe physical fitness probably would have a little more physical in it. You might be doing handstands on the floor and cartwheels. On the other hand in physical activity, you'd probably be doing fun activities, but not like physical fitness.

R: Tell me about your physical fitness…

F2: My physical fitness? Probably getting up and running everyday..

R: What do you mean?

f2: At least every day, (I have a huge background yard), I do like two or three laps, because it's so big, almost as big as our track.

R: Wow!

F2: I do three to four laps, and then I play in the snow bank. Or I go back inside to dance or something like freestyle dance. If it is raining I run around my house and do yoga or something or push-ups. I do handstands or whatever I can do inside, anything that is physically moving.

R: How did you learn how to do yoga?

F2: My mom has yoga tapes and uses them, so she is teaching me. It is really fun, they just have to get used to it because it is hard to do the movements. Me and my mom do it almost every night for about an hour.

R: Do you have Dance-Dance Revolution or something that leads you to dance?

F2: Yes, we have dance Revolution. I like doing that with my friends. We do like five games; they get mad because I win. You can set it to one plan, and I keep trying it every day when there is no school. I do it almost every day. When I have my cousins and my friends over and we do Dance-Dance Revolution to see who wins.

R: That's a great game! I'm interested about hearing about your decision to join Moving for Fun.

F2: I thought it would be fun because I do like exercising and I've been waiting for something involving activity; I like extra-curricular activities. I like just to move around, it is not really fun when you're sitting down. I love to watch other people move around like I do. I do not like to be the only one that's as moving around. Most of my friends like moving around so I decided to do Moving for Fun, because I thought it would really be cool to just move for the fun of it, not just to move.

R: What are you looking forward to most about Moving for Fun?

F2: The sports we get to play and may be running around.

R: We do moving for fun with different segments. We have warm-up activities, we play a mass game, and I will teach to activities. We'll keep you busy. The last question is there anything else you would like to say about participating in physical activities that maybe you have not said yet.

F2: No not really.

R: Okay I'm going to turn off the record or we'll talk for a minute and then I'll walk you back to class.

APPENDIX G:

SAMPLE PE 342 MOVING FOR FUN LEADERSHIP JOURNAL ENTRY

Journal Entry 1: Date _____

Name of Activity you led: _____

Name of activities that you assisted in:	Lead by:	Your role:
_____	_____	_____
_____	_____	_____
_____	_____	_____

Describe the activity you lead:

_____
_____
_____
_____

How do you feel the majority of 'Moving is Fun' participants received this activity?

Liked it _____ Did not like it _____ Mixed feelings _____

Give examples evidencing your response:

_____
_____
_____

How did you prepare for this activity?

_____
_____
_____

What would you change to make this activity more effective and enjoyable?

_____
_____
_____
_____

Do you feel you are motivating 'Moving for Fun' participants to stay active? Why or why not?

_____
_____
_____
_____

APPENDIX H:

SAMPLE POST-MFF INTERVIEW TRANSCRIPT

May 8, 2008, 12:50 p.m.
Post-MFF interview with Male 3. Length of interview: (13:24).
R = Researcher
M3 = Male 3

M3 has previewed the post-MFF interview prompts and is ready to begin.

R: How are you doing 'M3'?

M3: Good.

R: What can you tell me about your experience participating in Moving for Fun?

M3: I think it was really good, I got to spend time with friends and sort of motivated you to exercise more and do more programs. And there is nothing I really didn't like about the program.

R: What did you really like about the program? What were your favorite things to do?

M3: Probably tchoukball, sliding on your stomach on the scooters, and tennis.

R: Anything else?

M3: It sort of gave you time to meet new friends and I sort of got to know, a few kids better.

R: Is that a good thing?

M3: Yes

R: What did you learn about yourself participating in Moving for Fun?

M3: I learned that is not always what you can do or think you can do. It is sort of a motivation level. If you think that you can do 100 sit-ups. You'll do 100 sit-ups. If you say you can do 25 situps, and you're only going to be able to do is.

R: So give me an example using Moving for Fun activities.

M3: Like with tchoukball, it is not whether you can actually pass to other people or work with other people. If you think "everyone else stinks" then you're not going to work good with others. You are just going to get the ball and score without anyone else helping you.

That's what going to happen. But you need to think about other people and how you can help them.

R: What did you learn about yourself participating in the Moving for Fun activities?

M3: I can do a lot more than I think, more than I first thought I could.

R: What can you do now that you didn't think you could do before?

M3: Sort of aiming for higher limits. Now I have been doing sit-ups every night adding on more. I am up to 200 sit-ups.

R: You like sit-ups, don't you.

M3: Yes, they are easy.

R: What did you realize after participating in Moving for Fun activities? I'm asking you to reflect back to your rides home, when you're at home thinking about how Moving for Fun went or things that you did during Moving for Fun...

M3: Sometimes I wonder if I could have helped someone else more, done better, or worked harder on different things. Sometimes I just think about how much fun it was or what are we going to do next week.

R: How does participation Moving for Fun activities compared to participation in physical education?

M3: I think physical education is more about working on your physical abilities and how much you can push your body; where Moving for Fun is about adding fun into it, getting a better experience out of physical education.

R: In some ways, both programs are like. What are some of those ways?

M3: Some of the activities are actually alike, except in Moving for Fun, you had to work with other people. Everyone sort of got to know their limits together. Sometimes in gym, they'll do the same and people will work together, try to find out their limits and try to break new ground.

R: How is physical education different from Moving for Fun?

M3: It is more boring than Moving for Fun. You are not always working with other people, but in Moving for Fun, you're sort of driven to help other people and work on your own physical and mental.

R: Think about the activities between physical education and Moving for Fun. How do

they compare? Are they alike or different?

M3: We definitely did new things in Moving for Fun, like scooters; I've never done before; that was fun! Baseball, we never do in gym; we barely do tchoukball; and we've never done handball. We only do ultimate frisbee (in PE) when we do the mile run, after everyone is done with the mile. There is never any solid units on that.

R: Did you like the setup for Moving for Fun? We always been a warm-up, and we would do a mass game and then we would do two other activities, splitting the group in half.

M3: yeah, I guess. I really liked handball, tchoukball, ultimate frisbee; those kind games. I really liked capture the flag.

R: You guys did enjoy that!

M3: Except my shoe kept falling off and I kept slipping.

R: You have to tie your shoes! (smile)

M3: In warm-up games, everyone is sort of independent and on their own. But then in mass games. there was usually two different teams trying to help each other out.

R: Did you experience any new activities in Moving for Fun?

M3: Handball, baseball (wiffleball); I have never actually really played... the sort of dodgeball type game where you throw the ball and knocked down the pins; the four way soccer pin game..

R: Were they fun?

M3: I liked the game where you are on the mat and you had to throw the ball across the gym and hit the other persons pins better; I'm not really good at soccer.

R: How did it feel after you tried something new?

M3: It felt like I could actually suggest this to other places, say when you go to a camp or something. I could suggest the game and tell him how to play it; it's a good experience.

R: Have you noticed any changes in how you participate in physical activity since joining Moving for Fun?

M3: I've been trying harder to go through it; like with the mile run, I'm just going to try to 'belt it out' without really thinking. Just try and go through it, push myself beyond what I thought would be my limits, and go against the activities more and have more fun.

R: Are those changes in your ability to run?

M3: I guess. I sort of realized that... if you think that you really need to stop, and if you don't stop, this is not going to help you or anything. Then you're going to stop and you're not going to get anything from it. But if you think, if I just make it through this lap, then the next lap should be a cinch. If you keep thinking like that it will be a better experience and it will be more fun.

R: So it (participating in Moving for Fun) changed your frame of thought..

M3: Yes

R: Pushing yourself; it is okay to work hard. Is that what you're saying?

M3: Yes

R: Have you noticed how these changes have affected your participation in physical activities?

M3: Yeah, in tchoukball that we're doing now in PE, since Moving for Fun, where we had to pass it to other people sometimes and then shoot, I sort of realized to pass to other people more. Helping other people with it, rather than yelling at them saying "why didn't you do this, why didn't you pass to me, I could have scored" or something.

R: How can you explain that? Better team concept.

M3: Yes, better teamwork, and thoughts that other people can do just as good as you can. Why not let them.

R: How do you feel about joining other activity programs?

M3: Pretty good, I was thinking about joining the tennis team, but it was too late when I finally found out about it. They may come out with a Golf Team; I was thinking about doing that because my cousins are starting to do golf and it is interesting.

R: There are other before and after school programs, is there anything else that you participate in now or would be interested in?

M3: I am just thinking about when the golf team starts, doing that.

R: I know the man who is running tennis; I might be able to pull some strings if you are really interested.

M3: I have my own tennis racket,,..

R: We can talk more after the interview. How about community physical activity programs? Is there anything you're doing now or interested in finding out about?

M3: Not really

R: Do you still do your church group?

M3: Yes, the youth group. A lot of times I have dances at school or on to much homework to go.

R: Is there anything else you like to say concerning your experience with Moving for Fun?

M3: It really did work as a program and helped me understand physical education more and the activities were really fun.

R: What suggestions do you have for improving Moving for Fun?

M3: Having different sections of it. If it was a little longer, a week or two longer, you could do two classes... say they did tchoukball on a Tuesday and on a Thursday, then the next week and do another activity like cup stacking or relays, and then the next week you do something different... then it gives people a better chance to improve on something then next time. If you just do one class, you can't change anything or push yourself to get better, but if you do an activity two times in a row you have a second chance.

R: What a great suggestion; I like that. Thank you! We did try to do that little bit with cup stacking; we had a station one day just to play with it, then we did the relays.

M3: That was really fun.

R: I thought you would like that activity. If you are invited to join Moving for Fun next year, would you take the opportunity to join?

M3: Yes, definitely.

R: Great, unless there is something else you want to say, I am going to turn off the recorder, tell you about my next steps in the research, and then walk you back to class. Thanks!

APPENDIX I:

MOVING FOR FUN 2008 ACTIVITY DESCRIPTIONS

Warm up activities

Smugglers (3/18/08): An activity that uses 5 yellow hula-hoops, 5 black hula-hoops, 10 light-colored bean bags, and 10 dark-colored bean bags. To set up the game, hula-hoops are randomly placed on the gym floor. Two light colored bean bags are placed in each yellow hula-hoop, and two dark colored bean bags are placed in the black hula-hoops. Two teams are formed, the "goodies" and the "smugglers". The "smugglers" steal bean bags and put them into the incorrect colored hula-hoops. The "goodies" take smuggled bean bags and put them back into correct colored hula-hoops.

Loose-a-link tag (3/20/0): Split the group into four or more teams of four. Each team forms a "train", with members holding onto the shirt of the person in front of them. The first person in line has a gator ball (soft-skinned foam ball). The object of the game is to tag the "caboose" of the other trains and keep your train from being tagged. A person is "out" if they break the train, drop or throw the ball, or if they get tagged with the ball. New trains can be formed with four players.

Twisted tag (3/25/08): A tag game where there are two teams playing in half of the gym. The object is to dodge and flee your opponents. If you are tagged, you go stand on the sideline. When the person who tags you gets "out", you re-enter the game.

Freeze tag (3/27/08): Game set up included splitting group into two teams with one team wearing pinnies. The object of the game is to tag an opponent. Once tagged, a person is frozen; they must stand with their feet shoulder width apart with arms over their head,

hands clasped. To become "unfrozen", a team mate crawls through the frozen person's legs. The game ends if everyone on one team is frozen.

North/east/south/west (4/1/08): Using a compass, identify "north", "east", "south" and "west" of the playing space. On command, students moved in the designated direction using the instructed locomotor movement (such as walking, running, jumping, crawling, hopping, galloping, or skipping). On the whistle, students stopping, dropped to the floor and performed a strength or flexibility exercise (such as push-ups, curl-ups, straddle-stretches, or toe-touches). The activity continues for five to ten minutes.

Vanishing bean bags (4/3/08): This game is like musical-chairs however beanbags are used instead of chairs. To set up this game a bean bag is needed for each player. Beanbags are spread out around the gym. Students are instructed how to move around the gym using different movements (such as jumping, running, hopping, galloping, and skipping). On the whistle, students stop and secure a beanbag with the commanded body part (such as elbow, foot, chin, knee). One beanbag is removed each time the whistle is blown. Once out, students jump roped until the game ended.

'In the boat'-'in the water' (4/8/08): This is a "listen and react" game that uses two lines that are about a foot apart. One line is identified as the "boat", the other the "water". Students have to jump "in the boat" or "in the water" based on commands voiced by the teacher. If a student jumps to the wrong place, they are eliminated from the game. Those that were eliminated got a jump rope and jump-roped until the game was won. The last student jumping "in the boat" or "in the water" was the winner of the game.

Hoop basketball (4/10/08): To set up this activity, five hula-hoops were set on the floor identically on each side of the gym and seven basketballs were placed on the floor at the

backwall at each end of the gym. The group was divided into two teams and one team wore pinnies. The object of the game was to get into a hula-hoop on the opposing team's side and score baskets by shooting from inside the hula-hoop. Players in the hula-hoops received balls passed by teammates on the other side of the gym. If a basket was made, that ball was taken out of play and stored on a rack. If a player attempting to get a hula-hoop was tagged they returned to their home side of the gym. The team with a majority of the balls at then end of the game won.

Admiral's tea party (4/15/08): A follow the leader activity where students follow commands of the Admiral, such as "three in a boat", "chow", "starfish", "port", "starboard", "man-overboard", or "Admiral's tea party" (dance).

Freeze dodgeball (4/17/08): To set up this game only four-six gator (soft-skinned foam balls) balls are needed. Students work individually. The object of the game is avoid being hit with the ball. A ball can only be underhand-tossed at a player below their shoulders. If a student is hit, he or she has to freeze for seven seconds and then returns to play. A player can not hit the same person twice in a row and they cannot hold onto the ball for more than five seconds.

Cooperative games/fitness stations (4/22/08): On the field trip, two cooperative games were used to warm-up the students. Student participated in buddy-walker relays and a problem solving activity where a mat had to be moved across the gym without touching the floor and everyone hands from the team touching the mat at all times. After these activities, the *MFF* group walked to the fitness center and used equipment in the weight room and aerobic room.

Pac-man tag (4/29/08): Five students are given a gator ball (soft-skinned ball) and designated as a "pac-man". The remaining students move as instructed, using various locomotor movements (such as walking, skipping, hopping, running, galloping or jumping) on any line in the gym while the "pac-men" attempt to tag them with the ball. When a player is tagged, they become the new "pac-man".

Dynamic warm-up (5/1/08): Using the width of the gym and two lines that are about twenty feet apart, student move between lines using different movements such as jogging, high knees, butt kicks, lunges, "cherry-pickers", and "sumo" squats.

Mass games

Team handball (3/18/08): To set up this game two goals are needed, one at each end of the playing area, along with a designated "crease", a space restricted from offensive players. The group is divided into two teams. The object of the game is to throw the ball into the opponents goal. The ball moves by dribbling and passing it as in basketball. Only one defender is allowed to guard a person at a time. A person cannot travel more than three-steps without dribbling or passing the ball. The team that scores the most goals wins.

Bowling pin dodgeball (3/20/08): The playing area was divided into two equal spaces and three bowling pins were set up twenty-feet forward from the back wall across the playing space. Students were divided into two team. Ten gator balls (soft-skinned foam balls) were used as dodgeballs. The object of the games was to knock down the opponents bowling pins by throwing the balls. There were no guards on the pins. If a player was accidently hit by the ball, the thrower had to go to the side and do one of the following activities before re-entering the game: ten push-ups, ten curl-ups, or ten jumping-jacks.

Eclipse ball (3/25/08): This game is played on a volleyball court. The group is divided into two teams and each player has a racquetball racket. An eclipse ball is used, which is a soft high-bouncing six inch ball. Modified volleyball rules are used to control the game. The ball is allowed to bounce once between hits on either side of the net and a team can hit the eclipse ball an unlimited number of teams before returning it to the other team.

Bowling pin soccer (3/27/08): To set up this game, four goals were placed in each corner of the gym and four bowling pins were placed behind each goal. Four foam soccer balls were placed in the center circle of the gym. The group was divided into four teams. Each team wore different colored pinnies. The object of the game was to kick the soccer ball into one of your opponent's goals. If a goal was scored, a bowling pin was taken and put behind your team's goal. One defender could protect a team's goal without using their hands. The team with the most bowling pins at the end of the game won.

Stations I (4/1/08): Six stations were set up indoors in the main gym: Knock-out, scarf juggling, cupstacking, scooters, jump roping, and stretching. A MFF teacher leader was at each station to help instruct the activity. Students rotated stations every three minutes and around the stations twice.

Frisbee baseball (4/3/08): A game where only two bases are needed. The group is divided into two teams. The batter throws the Frisbee into the playing field and runs between the two bases continuously until the fielding team retrieves and secures the Frisbee. A Frisbee is secured when the fielding team forms a line and passes the Frisbee to each player on the team, moving it over, then under, then over, then under each fielder. When the Frisbee reaches the last fielder they yell "stop", and the batter stops running.

When all batters have been up the sides switch. The team that runs the most bases wins the game.

Cross-the-river (4/8/08): This is a cooperative team activity where each team of six has to get across the "river" or a space, without falling into the "river", or touching the floor. Each team will be given two scooters and three carpet squares to work with. Students are not allowed to stand on the scooters. If someone from the team falls into the "river" the team starts over.

Spiders and flies (4/10/08): To set up the game a center circle is needed within a designated playing area. The circle serves as the spider web. One student is designated the "spider" and wears a pinnie at the start of the game. The rest of the group are "flies" line up on one endline of the playing area. When the "spider" yells "it is time to fly" the flies must run to the opposite endline, staying within the boundries. If they are caught by the "spider" they become another "spider". The last fly is the winner.

Stations II (4/15/08): Four stations were set up outside on the paved play ground area: jump roping, Frisbee toss-and-catch, scarf juggling, and individual tennis wall-ball. Students stayed at each station for 5 minutes.

Tiger ball (4/17/08): To set up this game set up two end-zones using the baselines at each end of the gym. Split the group in half and have one team wear pinnies. The objective of the game is to pass a football into the end-zone to a team mate without dropping it. The football is passed or tossed amongst team mates; if it is dropped, possession changes to the other team. A pass can be intercepted or knocked down. A knocked-down pass is treated as a dropped pass. A defender must remain three feet away from a person attempting to pass the football to a teammate.

Orienteering (4/22/08): Working with partners and PE 342 student teachers, students were taught how to use a compass and navigated as group across the university campus to different locations; the campus center, the museum, and two athletic facilities.

Cup-stacking relays (4/29/08): Students were divided into four teams, each team having a PE 342 student leader. Students were lead through several different relay races cupstacking at three points in leg of the relay. Students used different modes of transportation or different movements as they traveled and performed different cupstacking skills during the relays.

Capture the flag (5/1/08): To set up this game, divide playing area into two territories. Place a flag on a cone in the left corner of the territory and set up a 4' x 8' prison area with cones on the right side of the territory starting half-way back from the center line. Split group in half forming two teams. Have one team wear pinnies. Each team needs two guards, one for the flag and one for the prison. The object of the game is to steal your opponent's flag and bring it back to your territory without getting tagged. If you are tagged at any time in the opponent's territory you go to their prison and stay there until you are tagged by someone on your team. When freed, you can opt to walk back to your side or attempt to get the flag. The game ends when one team successfully captures the flag. During the game, a team can call for one "jail break" meaning any one on their team that is prison at that time is freed.

Activity Sessions

Ultimate Frisbee (3/18/08): To set this game set up two end zones using the baselines at each end of the gym. Split the group in half and have one team wear pinnies. The objective of the game is to pass the Frisbee into the end-zone to a team mate without

dropping it. The Frisbee is passed amongst team mates; if it is dropped, possession changes to the other team. A pass can be intercepted or knocked down. A knocked-down pass is treated as a dropped pass. A defender must remain three feet away from a person attempting to pass the Frisbee to a teammate.

Pedometer activity (3/18/08): After brief instruction about using pedometers to track physical activity and setting the MFF program challenge of tracking daily physical activity from now until the end of MFF, May 1, 2008, each student was given a pedometer. Students were taught how to use the pedometer and tracked their activity playing "follow-the-leader" for the remaining time in the session. Before leaving, students checked their activity and were given a activity log to track activity during MFF 2008.

Keep-away basketball (3/20/08): Set this game up on a basketball court, with five to ten players on each side with one designated defender from the other team. The object of the game is to keep the ball away from the other team by passing it. A player cannot dribble the ball. Consecutive passes are counted. The team that makes the most passes at the end of the time period wins.

Team Handball (3/20/08): To set up this game two goals are needed, one at each end of the playing area, along with a designated "crease", a space restricted from offensive players. The group is divided into two teams. The object of the game is to throw the ball into the opponent's goal. The ball moves by dribbling and passing it as in basketball. Only one defender is allowed to guard a person at a time. A person cannot travel more than three-steps without dribbling or passing the ball. The team that scores the most goals wins.

"Blanket" volleyball (3/25/08): To set up this game two volleyball nets are set up side-to-side going across the center line of a basketball court. Students are divided into two teams. Each team has a blanket (twin flat bed sheet) that all students are holding onto. A modified volleyball is used. Students work together to catch and release the volleyball over the net, using only the blanket. A point is scored when the ball hits the floor before crossing over the net. A point can only be scored by the serving team.

Soccer "Eggs-in-the-nest" (3/25/08): To set up this game, a hula-hoop is placed in each of the four corners of the playing area. A set number of soccer balls (10 – 20 depending of group size) are placed in the center circle of the gym or soccer field. The group is split into four teams. The object of the game is to get the most "eggs" of soccer balls into your team's "nest" or hula-hoop. A team can steal "eggs" from other team nests. One person from each team can "guard" the nest. At the end of the time period, the team with the most "eggs" wins.

3-3 basketball (3/27/08): The group was divided into six teams of three. Using three baskets, student were taught rules for half-court 3-3 basketball games. Each game was refereed by a PE 342 student.

Tchoukball (3/27/08 and 4/1/08): To set up this game, two tchoukball rebounders are placed at opposite ends of the playing area and "forbidden" zones are marked along with a center line. The object of the game is to pass the tchoukball amongst teammates and after three passes, throw the ball at a rebounder. The opposite team has to catch the ball before it hits the floor. A point can be scored by either team on a rebound if the rebound is not caught, if the ball goes out of bounds on the rebound, or if a player or the ball contacts the floor inside the "forbidden" zone. No defense is allowed.

Ultimate ball (4/1/08): A modified ultimate Frisbee game using a gator ball (soft-skinned ball).

Full-court basketball (4/3/08): Using one-half of the gym, a full court modified basketball game was played. The group was split into two teams of four. Before a basket could be attempted, each player from that team needed to touch the ball. Regular basketball rules were used to control play; referee's loosely called penalties except for fouls.

Bordenball (4/3/08): A goal-oriented passing game, which is a lead-up game to European Team Handball. To set up the game, set up two goals, one at each end of the playing space. In front of each goal, lay out two tumbling mats to mark the "crease" area; an area that offensive players are restricted from. A goalie protects the goal. The group is divided into two teams. The object of the game is to throw a ball into the opponent's goal; shots can be restricted to one- or two-handed throws. The ball is moved by passing it; players cannot move with the ball. If the ball hits the floor, the defending team gains possession.

Tennis-volleyball (4/8/08): A modified volleyball game using tennis rackets and a foam tennis ball. Two adjacent volleyball nets were set up across the center line of the gym. The group was split into two teams, and each person on the team had a tennis racket. The tennis ball was served across the net by the serving team and a rally took place. The tennis ball was allowed one bounce before a return or pass was made. Volleyball rules were used to control the rest of the game.

Scoot-n-shoot (4/8/08): To set up the game, duct-tape two hula-hoops up on the wall, about 8 to10 feet off the floor, at opposite ends of the gym. Each student is given a 1' x1' carpet square. The group is split into two teams. The objective of the game is to throw

the ball into your teams hula-hoop. The ball moves using passes to teammates. If a ball is dropped it goes to the other team. There is no man-man defense, but a pass can be intercepted. Players must have one foot on the carpet square during the game, and must slide the carpet square with them as they move up and down the playing area.

Volleyball (4/10/08): Two volleyball courts were set up using the length of the gym. The group was divided into four teams. Modified volleyballs were used to facilitate play. Regular volleyball rules were used with one adaptation; the ball was allowed to bounce once on a side before being returned. Only under-hand serves were used.

Frisbee basketball (4/10/08): To set up this game, two hula-hoops were duct-tapped together and hung from the main basket at each end of the basketball court. The group was divided into two teams; four players from each team played at a team. The remaining team players spread out on the side-lines and acted as facilitators in game play. The objective of the game was to throw the Frisbee through one of the two hoops at the appropriate end of play. The Frisbee was moved by passing to teammates on the court or using facilitators on the sidelines. If the Frisbee was dropped the other team gained possession. If a team scored a "basket", the ball restarted as in basketball. There was no defense in this game.

"Doctor" dodgeball (4/15/08): To set up this game, divide the playing space into two halves. Set four bowling pins up on each side opposite each other, ten feet in from the basketball baseline. Put one hula-hoop on each side which is the "Doctor's" office. Split the group evenly; each team will defend one side and players cannot go into the other team's territory. One person from each team volunteers to be the "doctor" and wears a pinnie. Using six gator balls (soft-skin 8" balls), teams will try to hit the bowling pins

down or hit the doctor. Bowling pins are not allowed to be guarded. Only the team doctor can put bowling pins back up. Only the team doctor can get hit with a ball. If this happens, the doctor becomes a regular player and no longer reset pins. The first team to get all four bowling pins down wins the game.

Wiffleball (4/15/08): The playing surfaced used for wiffleball was a pre-painted four-base field on the play ground. The group was divided into two teams and modified baseball rules were used to control play. A teacher-leader pitched the ball, there were no strike-outs, and each team batted through before sides changed.

Frisbee-keep-away (4/17/08): A paved area of the playground was used to play this game. The group was divided into two teams. The objective of the game was to try and see how many passes a team could make before dropping the Frisbee or being intercepted, using the entire playing space.

Zone-Ultimate Frisbee (4/17/08): A modified ultimate Frisbee game. Players on each team are assigned a zone to play in and the Frisbee must be touched in each zone before it can be thrown into an end zone.

Garbage ball (4/22/08): To set up this game, a garbage can is placed in each corner of the playing area. Ten to 20 gator balls (soft-skinned balls) are placed in the center circle. The group is divided into four teams. The object of the game is to get the most balls into your garbage can. If you are tagged traveling with a ball, you are frozen and must release the ball. A teammate my tag you to become “unfrozen”. Once a ball is in the garbage can, it cannot be removed. The team with the most balls in their can wins.

Swimming (4/22/08): Open swimming at the university during the MFF field trip.

"Battleship" dodgeball (4/29/08): To set up this game, the gym is divided into two large spaces and a 4' x 8' mat, the "battleship", is placed in the middle of each team's space. Four bowling pins are set up on each mat. Eight gator balls (soft-skin 8" balls) are used. The object of the game is to knock down all the pins on your opponents "battleship" throwing the gator balls. Two crewmates can protect the pins from balls thrown by the opposite team. The rest of the team is retrieving and throwing balls at the opposite "battleship". The game ends when a team sinks their opponent's "battleship".

Capture the flag (4/29/08): To set up this game, divide playing area into two territories. Place a flag on a cone in the left corner of the territory and set up a 4' x 8' prison area with cones on the right side of the territory starting half-way back from the center line. Split group in half forming two teams. Have one team wear pinnies. Each team needs two guards, one for the flag and one for the prison. The object of the game is to steal your opponent's flag and bring it back to your territory without getting tagged. If you are tagged at any time in the opponent's territory you go to their prison and stay there until you are tagged by someone on your team. When freed, you can opt to walk back to your side or attempt to get the flag. The game ends when one team successfully captures the flag. During the game, a team can call for one "jail break" meaning any one on their team that is prison at that time is freed.

Indoor soccer (5/1/08): Using the full space of the gym including walls, a foam soccer ball, and futsal rules the group was divided into two teams. Six players from each team were allowed to play at one time, one being the goalie. Shifts ran for 3 minutes and all players changed positions at shift changes.

Rugby Skills (5/1/08): Students were introduced to rugby and tried passing and catching a rugby ball in small groups. Two teams were formed and the group played "keep-away" using the rugby ball.

APPENDIX J:

OBSERVATION RESULTS

The following eight tables include results of three observations for each study participant as they participated in MFF activities. Data regarding activity engagement, pleasure, or displeasure were recorded. Activity engagement was assessed as 0, 1, 2, or 3 based on the criteria that follow. Behaviors that indicated the study participant was pleased, had fun, and enjoyed participating in the activity were recorded as well as behaviors that indicated the study participant was displeased or unhappy participating in the activity.

Criteria defining engagement:

e. Listens intently to activity instruction and directions, asking questions when unsure or volunteers responses when question is poised to group
f. Participates without reservation
g. Cooperates well with others
h. Shows signs of enjoyment (smiles, nods, laughs, positive body language, shows respect)

3 = a, b, c, & d are presented in student behavior
2 = 3 of the 4 above criteria are presented in student behavior
1 = 2 of the 4 above criteria are presented in student behavior
0 = 1 of the 4 above criteria are presented in student behavior

Behavioral indicators of enjoyment and fun while participating in activity

- Smiles
- Laughing
- Thumbs –up
- Clapping
- Effort shown in participation
- High-fives
- Up and down nods of the head
- Positive cheering
- Cooperating with others
- Talking with peers
- Flushed face
- Volunteering
- Assisting others
- Positive Verbal comments
- Taking risks
- Shows good sportsmanship

Behavioral indicators of displeasure participating in activity

- Frowning
- Apathy
- Thumbs-down
- Lack of effort
- Side to side head nods
- Negative cheering
- Lack of cooperation
- Refusal to participate
- Withdrawn
- Antagonizing others
- Aggression to others
- Disregarding game rules
- Arms crossed across the chest
- Eye-rolling
- Negative verbal comments
  Poor sportsmanship

MOVING FOR FUN 2008 MIDDLE SCHOOL OBSERVATION ASSESSMENT

Date: April 1, 2008 Observation Number: 1 Activity Observed: Ultimate ball

Subject	Activity engagement (Indicate 0, 1, 2, or 3)	Behaviors showing Enjoyment and Fun	Behaviors showing Displeasure
Female 2	3	Smiles, effort, clapping, cooperation, positive cheering, talked with peers, had a flushed face, shared positive comments, took risks and showed good sportsmanship.	Did not display displeasure.
Female 3	3	Showed effort, cooperation, talked with peers, took risks, and showed good sportsmanship.	Did not show displeasure.
Male 1	2	Showed smiles, effort, cooperation, talked peers, assisted others, and, took risks.	Antagonizing and aggressive behaviors.

Table continues

Subject	Activity engagement (Indicate 0, 1, 2, or 3)	Behaviors showing Enjoyment and Fun	Behaviors showing Displeasure
Male 2	2	Showed smiles, effort, and some cooperation he talked with his peers, and had a flushed face.	Uncooperative at times, antagonized others, disregarded game rules, rolled eyes, had negative comments.
Male 3	3	Showed smiles, effort, and cooperation; he talked with his peers, had a flushed face, took risks, and showed good sportsmanship.	Did not show displeasure.
Male 4	3	Showed smiles, effort, cooperation, and positive cheering; he talked with his peers, had a flushed face, took risks, and showed good sportsmanship.	Did not show displeasure.

Observation notes: In ultimate ball M1 and M2 needed reprimanding. The activity itself was well set up and managed and despite M1 and M2 behavior, the participants played the game well. M1 was acting obnoxious, yelling when students were trying to catch the ball to get them to drop the ball. He stopped when he was told. M2 got confused with the rules of the game, got frustrated and left the game for a few minutes. RH met him in the hall, spoke with him a few minutes, and he returned and finished the game. In the future, M1 and M2 will be split up whenever possible. The PE 342 student who led this activity felt this group liked the activity because they showed they were excited, motivated, and enthusiastic as they played.

MOVING FOR FUN 2008 MIDDLE SCHOOL OBSERVATION ASSESSMENT

Date: April 3, 2008 Observation Number: 2 Activity Observed: Basketball

Subject	Activity engagement (Indicate 0, 1, 2, or 3)	Behaviors showing Enjoyment and Fun	Behaviors showing Displeasure
Female 4	3	Showed smiles, effort, clapping, nodded her head up and down, and cooperation; she talked with her peers, had a flushed face, volunteered, assisted others, had positive comments, took risks, and showed good sportsmanship.	Said a negative verbal comment to M2.
Male 2	2	Showed effort and some cooperation; he talked with his peers, assisted others and took risks.	Uncooperative, antagonizing, aggressive, argumentative, and had negative comments.

Observation notes: In basketball, M2 showed frustration working with team members and following the rules of the game. The game was modified to facilitate participation. He did not like the fact that before a basket could be made, the ball needed to be passed to every person on the team. F4 got frustrated with M2 as they were on the same team and M2 did not want to pass her the ball. She likes playing basketball, she was open, and had not received the ball yet; she let M2 know he was not playing right. Regular basketball rules were used to control play; referee's loosely called penalties except for fouls. The PE 342 student tried to resolve the problem, but M2 quit playing and the PE student teacher took his place. RH spoke to M2, and after a few minutes, he rejoined the game. MFF activities are often modified which frustrated M2 because of his AS. The PE 342 teacher felt he could have been a better motivator, feeling some kids did not put much effort into playing the game.

MOVING FOR FUN 2008 MIDDLE SCHOOL OBSERVATION ASSESSMENT

Date: April 8, 2008 Observation Number: 3 Activity Observed: 'In the boat'-'in the water'

Subject	Activity engagement (Indicate 0, 1, 2, or 3)	Behaviors showing Enjoyment and Fun	Behaviors showing Displeasure
Female 1	3	Showed smiles, effort, and cooperation; she talked with her peers, took risks, and showed good sportsmanship.	Did not show displeasure.
Male 1	3	Showed smiles, effort and cooperation; he talked with his peers and took risks.	Had one negative comment.

Observation notes: The activities for today included a great follow the leader activity, "In the boat- in the water. "In the boat- in the water was a great game for kids to play. It was simple, involving only listening and jumping skills; still it challenged the kids as they

competed with their peers to be better responders to commands. Students responded well to this activity, especially F1. The PE 342 student teacher liked how all students were participating, smiling, and enjoying the activity.

MOVING FOR FUN 2008 MIDDLE SCHOOL OBSERVATION ASSESSMENT

Date: April 8, 2008 Observation Number: 4 Activity Observed: Scoot-n-shoot

Subject	Activity engagement (Indicate 0, 1, 2, or 3)	Behaviors showing Enjoyment and Fun	Behaviors showing Displeasure
Female 3	3	Showed smiles, laughter, effort, positive cheering and cooperation; she talked with her peers, had a flushed face, assisted others had positive comments, took risks, and showed good sportsmanship.	Did not show displeasure.
Female 4	3	Showed smiles, laughter, clapping, effort, positive cheering and cooperation; she talked with her peers, had a flushed face, assisted others took risks, and showed good sportsmanship.	Did not show displeasure.

Observation notes: The “Scoot-n-shoot” game was awesome. The participant’s were laughing and worked hard as they played. It was fun to watch everyone drag their carpet with their foot as they moved around the court. F3 found a role as a facilitator in this game. She worked hard to make sure she got to a place to receive a pass and move to a teammate who was in position to shoot at the hoop. F4, one of her teammates was very successful playing this game; she seemed surprised and happy with her performance. The PE 342 student teacher felt the activity was successful because “kids were laughing, smiling, and enthusiastic in play; their faces were red and they ran to the water fountain when allowed.”

MOVING FOR FUN 2008 MIDDLE SCHOOL OBSERVATION ASSESSMENT

Date: April 10, 2008 Observation Number: 5 Activity Observed: Volleyball

Subject	Activity engagement (Indicate 0, 1, 2, or 3)	Behaviors showing Enjoyment and Fun	Behaviors showing Displeasure
Female 1	2	Showed smiles, some cooperation, talked with peers, and took risks.	Apathy, lack of effort; she antagonized others and had some aggressive behaviors.

Observation notes: Volleyball was hard to for the same reasons. Students have weak skills which makes it difficult to keep the ball in play. The game was modified adding a one-bounce rule which helped facilitate play and keep the game moving. F1, who says she "likes volleyball" appeared to be distracted and off-task some of the time. She did things that made the game harder for others to enjoy. The PE 342 student teacher stated he "was encouraged by the effort and enthusiasm some of the MFF participants showed, yet others were off-task in their game play".

MOVING FOR FUN 2008 MIDDLE SCHOOL OBSERVATION ASSESSMENT

Date: April 15, 2008 Observation Number: 6 Activity Observed: Doctor Dodge

Subject	Activity engagement (Indicate 0, 1, 2, or 3)	Behaviors showing Enjoyment and Fun	Behaviors showing Displeasure
Female 1	3	Showed smiles, effort, positive cheering, and cooperation; talked with her peers, assisted others, took risks and showed good sportsmanship.	Did not show displeasure.
Female 2	3	Showed smiles, effort, positive cheering, and cooperation; talked with her peers, assisted others, took risks and showed good sportsmanship.	Did not show displeasure.

Table continues

Subject	Activity engagement (Indicate 0, 1, 2, or 3)	Behaviors showing Enjoyment and Fun	Behaviors showing Displeasure
Female 3	3	Showed smiles, effort, positive cheering, and cooperation; talked with her peers, assisted others, took risks and showed good sportsmanship.	Did not show displeasure.
Male 3	3	Showed effort, cooperation, talked with peers, a flushed face, assisted others, took risks, and showed good sportsmanship.	Did not show displeasure.
Male 4	3	Showed smiles, effort, positive cheering, cooperation, talked with peers, had a flushed face, assisted others, took risks, and showed good sportsmanship.	.Did not show displeasure

Observation notes: Doctor" dodgeball was a new experience for most students. They loved the game because where there is constant action! I was surprised at some of the student who volunteered to be "doctor's" knowing they could get hit with the ball. This part of the game was not a problem for anyone as the ball was soft and most cannot throw it that hard. The PE 342 student felt the students liked this activity saying "they worked the hardest I have ever seen during an activity in MFF. It felt good to see them smile and be so engaged in the activity. They were enthusiastic the entire time!"

MOVING FOR FUN 2008 MIDDLE SCHOOL OBSERVATION ASSESSMENT

Date: April 17, 2008 Observation Number: 7 Activity Observed: Frisbee keep-away

Subject	Activity engagement (Indicate 0, 1, 2, or 3)	Behaviors showing Enjoyment and Fun	Behaviors showing Displeasure
Female 4	3	Showed smiles, effort, and cooperation; she Had a flushed face, talked with her peers, assisted others, took risks, and showed good sportsmanship.	Did not show displeasure.

Observation notes: In this Frisbee game, the University student planned well but chose a space to play that was too small for the number of students playing at one time. This was frustrating for the kids as they played, so I intervened, expanding the boundaries. This opened up the game. M1 did not play the whole time, saying his legs hurt and he still did not feel well. It was a fairly hot day (80 degrees) and sunny which in very unusual for this time of year in Vermont. The PE 342 student was disappointed in his teaching feeling that the MFF participants did not enjoy the game because they lacked skills and understanding of the activity. This statement was not supported by the observation.

MOVING FOR FUN 2008 MIDDLE SCHOOL OBSERVATION ASSESSMENT

Date: April 29, 2008 Observation Number: 8 Activity Observed: Capture the flag

Subject	Activity engagement (Indicate 0, 1, 2, or 3)	Behaviors showing Enjoyment and Fun	Behaviors showing Displeasure
Female 2	3	Showed smiles, laughter, effort, and cooperation: she talked with her peers, had a flushed face, volunteered, assisted others, took risks, and showed good sportsmanship.	Did not show displeasure.
Male 1	3	Showed smiles, laughter, effort, and cooperation; he talked with his peers, assisted others, had a flushed face, took risks, and showed good sportsmanship.	Did not show displeasure.

Table continues

Subject	Activity engagement (Indicate 0, 1, 2, or 3)	Behaviors showing Enjoyment and Fun	Behaviors showing Displeasure
Male 3	3	Showed smiles, effort, up and down head nodding, And cooperation; he talked with his peers, had a Flushed face, assisted others, shared positive verbal Comments, took risks, and showed good sportsmanship.	Did not show displeasure.
Male 4	3	Showed smiles, effort, up and down head nodding, and cooperation; he assisted others, took risks, and showed good sportsmanship.	Did not show displeasure.

Observation notes: Capture the flag was a great activity choice. The fifth grade students were the only ones that needed to learn the game; everyone else knew it from PE. The University students played with MFF students, RH, and the student teacher. Everyone

worked well together strategizing ways to organize prison escapes and to capture the flag. The MFF participants really liked playing with the adults! The PE 342 student who led the activity felt everyone worked hard. "They all took risks, were smiling, and often were out of breath.

CURRICULUM VITAE:
SUSAN A. YESALONIA, ABD-Ed.D

EDUCATION

Ed. D. Candidate, Walden University, Baltimore, MD. Concentration: Teacher Leadership. Anticipated Graduation: April, 2009.

M.S. Physical Education. Ohio University, Athens, Ohio. Concentration: Athletic Training, 1981.

B.S.E. in Physical Education. State University of New York, College at Cortland, Cortland, N.Y, 1979.

PROFESSIONAL EMPLOYMENT

Assistant Professor, Department of Biology & Physical Education, University, Vermont. January, 2005 – present.

Physical Education/Health Teacher**:** Grades 9 – 12, Montpelier High School, Montpelier, Vermont. July, 1997 – January, 2005.

Health Educator: Grades 6 – 8. Wilson Middle School, Carlisle Area School District. Carlisle, Pennsylvania. August, 1995 – June, 1997.

Physical Education/ Health Teacher: Grades 7 - 12. Middle & High School, Vermont. October, 1983 – February, 1988.

Athletic Trainer. John F. Kennedy High School. Iselin, New Jersey. August, 1981 – June, 1983.

UNIVERSITY TENURE DEVELOPMENT: 2005-present.

Teaching:

Pedagogical coursework in Health and Physical Education: (PE 341 & 342) Elementary and Secondary Methods of teaching Physical Education, (PE 261) Foundations in Health Education, and (PE 373) Activities and Programs for the disabled and aging.

Service course: (PE 260) Personal and Community Health

University Supervisor of Physical Education Internships in student teaching (ED 425)

University Supervisor of Internships in Physical Education (PE 426)

Professional Development:

Walden University, Educational Leadership Doctoral Program. May 2005 to present. Completed 54 course credits and research project. Currently completing dissertation.

Level II Teacher Licensure, Vermont State Board of Education. Health PreK – 12 (3 -31) and Physical Education PreK – 12 (3 – 08). 7/1/2006 – 6/30/2013.

Vermont Association for Health, Physical Education, Recreation and Dance (VtAHPERD). Attendance at annual conventions: 1997-present.

Presenter: VtAHPERD Conventions; 2005-present

Linking Personal Health to Academic Success. November 11, 2005.

Using Service Learning in PE Teacher Education Program to Promote Extracurricular Activity Programs. November 8 – 9, 2006.

Moving for Fun: A service learning fitness intervention project for middle school students. November 14, 2007.

Using dance to track and improved fitness. Co-Presenter. November 13, 2007.

Understanding identified middle school students and their perspectives to physical activity and fitness. November 12, 2009.

Eastern District Association of the American Alliance of Health, Physical Education, Recreation and Dance (EDA-AAHPERD). Attendance at annual conventions: 2006-present.

Presenter: EDA-AAHPERD Conventions, 2007 – present.

EDA-AAHPERD Leadership Conference, New Brunswick, New Jersey. August 17 – 18, 2007. Presenter: *"Who moved my cheese, who changed the …"*

Moving for Fun: A service learning fitness intervention project for middle school students. February 29, 2008.

Understanding identified middle school students and their perspectives to physical activity and fitness. (February 6, 2009)

Poster Presenter: Vermont Blueprint for Health Annual Conference. Burlington, Vermont. April 20, 2007.
Reversing the Trends: Motivational Fitness Intervention Programs.

Poster Presenter: Vermont Campus Compact Gala, State House, Montpelier, Vermont. March 29, 2007.
Using Service Learning in Teacher Education Programs

Vermont Council of Teacher Educators
Monthly meetings, Spring, 2007 – present.
Fall 2007, Vermont Level I Licensure Portfolio Workshop
Fall 2008, Vermont Level I Licensure Portfolio Workshop, Part II.

Vermont Department of Education: Teacher licensure, Peer Review Panelist: 2003 - present.

Vermont Standards Board for Professional Educators. Castleton Sate College, ROPA Accreditation Visiting Team, February 16, 2007.

Vermont Department of Education. Vermont Summer Institute in K-12 Physical Education – *"Motivating Students through Assessment",* August 8 - 12, 2006. Presenter and Attendee.

University Faculty Day*: "Wireless Classroom or Student Performance Systems",* April 18, 2006*.*

Problem-Based Service Learning Institute, Middlebury, VT. January 12 – 13, 2006.

University Service:

Advisor to **21** Physical Education Majors

Community collaborator for physical education teacher education program service learning opportunities

University site Coordinator: Vermont Standards Board for Professional Educators, ROPA-r accreditation

PE Club – Faculty Advisor. Physical Education Club at University. Spring, 2005 – present.

University's Partridge Walk through time. 2006 – present.

University Admissions Consultant**:** Review prospective Physical Education student Files; Fall, 2006 to present.

Developed and gained University Curriculum Committee approval for:
Minor in Physical Education; Health
New Course Approval; PE 261, Foundations in Health Education

University Committee Work
University Licensure Committee **–** Teacher licensure consultant

Wellness Committee: Organize and manage Wellness activities for university community

Math/Science School Curriculum Committee: Fall, 2006 to Spring, 2008.

Math/Science Admission Committee**:** Fall, 2006 to Spring, 2008.

Freshman Transition Committee**:** ADHOC committee formed by President to research, study and report on current trends in freshman retention and orientation procedures with similar schools across the country. January, 2006 - February, 2007. Replaced by Retention Committee, 2007.

University Service Learning Faculty Consultant, 2006 – 2007.

University Service Learning Presentation: *Service learning and scholarship*. December 12, 2006, 12 – 1 p.m., Kreitzberg Library.

Community Service:

VtAHPERD Executive Committee: 2005 – present. Duties include:
Attend quarterly VtAHPERD meetings.

Vermont Council for Services Representative to the Eastern District Association of the American Alliance of Health, Physical Education, Recreation, and Dance (EDA-AAHPERD).

Awards Committee, Chair 2008 – present.

Special Olympics: Organize Vermont Fall Soccer Tournament, University. 2006 – present.

Vermont EDA-AAHPERD Council for Services Representative: Spring, 2006 to present.

Voting member of the EDA-AAHPERD representative assembly.

Attend annual convention, May, and August meetings.

Organize and develop August Leadership Conference.

EDA-AAHPERD Finance Committee, 2007- present.

EDA-AAHPERD Awards/Nomination Committee, 2008-present.

AWARDS

Vermont Campus Compact Engaged Scholar Award, Finalist. March 29, 2007.

University Service Learning Grant, 2006.

University Junior Faculty Research Grant, 2007.

PROFESSIONAL MEMBERSHIPS

VtAHPERD, 1997-present.

AAHPERD, 2006 – present.

VCTE, 2006-present.

Association of Supervision and Curriculum Development (ASCD), 2004-present.