Why students hate, tolerate, or love gym: a study of attitude formation and associated behaviors in physical education.

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WHY STUDENTS HATE, TOLERATE, OR LOVE GYM:
A STUDY OF ATTITUDE FORMATION AND ASSOCIATED BEHAVIORS
IN PHYSICAL EDUCATION

A Dissertation Presented
by
TERESA B. CARLSON

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the
requirements for the degree of
DOCTOR OF EDUCATION
February 1994
School of Education
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Approved as to style and content by:

Judith H. Placek, Chair

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Harry Schumer, Member

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DEDICATION

This dissertation is dedicated to my family, particularly my parents, who forgot to tell me that some things were not possible.
I arrived at the University of Massachusetts completely naive about the task I had decided to undertake. I would like to thank the people who have gently awakened in me a desire to write well and do good research, as well as good teaching.

To Judy Placek: I doubt if a better advisor and chair exists. Among other things, I appreciate your incredible patience, your willingness to turn work around rapidly, and your ability to ask the right questions at the right times.

To Larry Locke: The chance to work with someone who has thought about our profession as much as you have has been a privilege that I will treasure always.

To Harry Schumer: Your good humor and astute comments are greatly appreciated.

To Patt Dodds: Your teaching and your relationship with students offers me a model to which I aspire.

To Tunner Brosky: When things looked bleak and the sun temporally had disappeared from view, I knew that I could always find warmth when I entered your office.

To Greta Lawrence, my peer debriefer, who provided me not only with guidance in my research, but perhaps more importantly with a friendship that I treasure.

To the teachers who participated in this study and associated pilot studies: Thank you for trusting me and for your willingness to commit valuable time to my research.
I am grateful to...

The student participants who willingly let me into at least a small part of their world;

My PETE colleagues, who provided companionship, stimulation, and a lot of laughter;

And to my many friends, both close and far away. Without your encouragement and support, these three years would have been much more difficult. I especially wish to thank Elena Mustakova for your friendship and encouragement, and Jerry Kremer, who provided me with love, support and laughter throughout this whole process.
ABSTRACT

WHY STUDENTS HATE, TOLERATE, OR LOVE GYM:
A STUDY OF ATTITUDE FORMATION AND ASSOCIATED BEHAVIORS
IN PHYSICAL EDUCATION
FEBRUARY 1994
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Directed by: Judith H. Placek

The purpose of this study was to investigate secondary students' attitudes toward physical education and to identify the variables that contribute to the formation of those attitudes. In addition, the link between the attitudes that students hold toward physical education and their behavior in physical education class was investigated. A survey given to 150 students was used as a screening device to select thirty-six participants. Data were collected by: (a) conducting two group interviews with each of the student participants, (b) conducting stimulated recall sessions and individual interviews, (c) observing classes, (d) videotaping classes, and (e) interviewing each of the four teachers who were conducting the observed classes. The data were coded and analyzed revealing differences and similarities between students who held varying attitudes toward physical education.
Aspects of cultural, societal, and school contexts were found to be the major influences of student attitudes toward physical education. The major influences within the cultural context were gender, an idolization of elite sport persons and a compartmentalization of the body and mind. Within the societal context, influential factors were family, mass media, the participants' sporting experience and skill level, peers, previous physical education experiences, and perceptions of fitness. These factors influenced the self concept and self esteem of the students. The most influential factor within the school context was the teacher.

Students often expected (a) physical education to be fun, (b) physical education class to have few goals or challenges, (c) learning not to take place in physical education, and (d) physical education to be sport. Those expectations lead many students to believe that physical education was not a "real" subject. This belief, together with the influential factors within the three contexts, affected student attitude toward physical education.

The findings suggested that student behavior often does indicate attitude. Students, however, could be influenced by certain situational pressures which placed them under pressure to act in a way contrary to their attitude.
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CHAPTER I
INTRODUCTION

Introduction and Statement of the Problem

The bell rings for seventh period and it is time for eighth grade physical education class. Some students run down the hallways to get to "gym" as fast as they can, others drag their feet, reluctant to participate. A few do not reach the gymnasium, often using medical excuses to avoid class.

Most teachers directly will connect such eagerness or reluctance with either a positive or a negative attitude. Negative attitudes prompt anxiety and concern in teachers. When I was teaching, I, like many other physical educators, cited the development of life-long positive attitudes toward physical activity a major goal of my program. A natural extension of this goal was developing positive attitudes toward physical education. I was frustrated by students who appeared to lack the positive attitude that I wanted and needed from my students. Conversely, I was delighted by those who seemed to develop what I considered the appropriate attitude.

Purpose of the Study

In this study, secondary students' attitudes toward physical education were investigated, and the variables that contribute to the formation of those attitudes identified.
Further, the link between the attitudes that students hold toward physical education and their behavior in physical education class was investigated.

Many teachers are frustrated by their lack of effectiveness with students who hold negative attitudes as this quotation from a dedicated middle school teacher illustrates, "I want to get inside of [my students] heads. I will be perfectly honest, after I have exhausted all this [the strategies] I just leave them [students with negative attitudes] there [on the sidelines] ... I need more tools to get inside of them, figure how to get to them." (Carlson, 1992b, p. 20). This study was an attempt to "get inside some students' heads" to discover more about attitudes, their formation, and the relationship between attitude toward physical education and behavior in physical education class.

**Significance of Study**

The attitudes students hold toward physical education will influence how they feel about the class and in some cases how they behave. In the long term, these attitudes towards physical education may transfer to how they feel about physical activity in general. This is given significance by the fact that for many teachers one of the major goals of physical education class is to promote lifelong positive attitudes towards physical activity.
In order to understand the experiences of individuals who hold positive, equivocal (mixed), or negative attitudes, it is imperative first to understand how the attitudes were formed. For this reason, investigating the variables that contribute to attitude formation is an important step in determining strategies designed to alter students' dispositions towards physical education.

Further, if the beliefs I held when teaching secondary school are typical of the beliefs held by many physical educators, then attitude and behavior are firmly linked in their minds. Finding out more about the connection between attitude and behavior is important because assumptions about the success of physical education programs often are based only on visible student attitudes (i.e., behavior).

Increased knowledge of the variables that contribute to attitude formation, and awareness of how attitude and behavior connect, allows teachers and researchers to achieve a more complete understanding of student experiences and program effects, an understanding which goes beyond what is obvious—and sometimes misleading.

**Research Questions**

The specific questions this study addressed were:

1. What are factors that contribute to attitude formation toward physical education?
To know that a student has a positive, equivocal, or negative attitude toward physical education class is insufficient information upon which to base any change strategies. Until more is known about how these attitudes are formed and the influence of various factors, teachers and researchers are working to create and maintain positive attitudes without possessing all the necessary facts. This background information is essential in order to obtain an understanding of why various attitudes develop.

2. What is the connection between behavior in physical education and attitude toward that subject?

The available research concerning the relationship between attitude and behavior is inconsistent. The findings of some studies suggest that, due to other variables, behavior often is not a sound indicator of attitude. Few studies have been conducted in this area in general education and none that I have found in physical education. Assumptions by teachers about the students' enjoyment of class and their feelings towards it are based almost solely on how students act. This study investigated the reliability of this indicator.
CHAPTER II

REVIEW OF LITERATURE

Introduction

Positive attitudes and active participation by all students in the class is the dream of every teacher. Apart from the managerial implications, compliant engagement allows teachers to believe (or make believe) that students are present from choice—rather than compulsion. Indeed, in many physical education programs, attitude and participation in class are seen as so important that they are the sole basis for student evaluation and the assignment of grades. The emphasis placed on attitude encouraged me to look closely at what is known and not known about attitude formation and the relationship between attitude and behavior, particularly in the physical education environment.

This chapter is divided into three sections and includes a summary of what is known about student attitudes in physical education. The first section defines the terms used in this study. The second section uses Oskamp's (1991) categories of attitude formation in connection with physical education. The final section reviews studies which investigate the connection between behavior and attitude in general and in a subject-specific context, the physical education class.
Definitions of Terms

Attitude is a word that everyone recognizes although a precise definition is difficult to find. Indeed, Fishbein and Ajzen (1975) stated that the concept of attitude "is characterized by an embarrassing degree of ambiguity and confusion" (p. 1). Allport (1935) stated that the central feature of all definitions of attitude is the idea of readiness for response. Oskamp (1991) clarified this by stating that "an attitude is not a behavior, not something that a person does, rather it is a preparation for behavior, a predisposition to respond in a particular way to the attitude object" (p. 7).

Other attributes which psychologists report as important in understanding the term are (a) attitudes are not passive; they are dynamic and as such impel or motivate behavior, and (b) because attitudes are not behavior per se, they cannot be observed directly. Oskamp (1991) clarified the second point by stating that,

An attitude has the status of an intervening variable: that is an attitude is a theoretical construct which is not observable in itself, but which mediates or helps explain the relationship between certain observable stimulus events (the environmental situation) and certain behavioral responses" (p. 14).

Freedman, Carlsmith and Sears (1974) stated that "attitudes tend to be highly resistant to change, they do not generally respond to a few new facts, they are more complicated in this respect than facts" (p. 247). For example, just knowing about the benefits of fitness and
health (knowledge) will have very little effect on an individual's behavior or attitude.

For the purpose of this study, the Fishbein and Ajzen (1975) definition will be used. They defined attitude "as a learned predisposition to respond favorably or unfavorably towards a given object" (p. 6).

Beliefs are connected to attitudes. Attitudes, for instance, often are described as being determined by the person's salient beliefs about that object. Fishbein & Ajzen (1975) explained the distinction between beliefs and attitudes by stating,

Whereas attitude refers to a person's favorable or unfavorable evaluation of an object, beliefs represent the information he [sic] has about the object. Specifically, a belief links an object to some attribute" (p. 12).

Oskamp (1991) connected these two concepts by stating "a person's attitude toward an object is a summary of all of his or her evaluative beliefs about the object" (p. 12). Evaluative beliefs are value judgements (e.g., competition is fun, the teacher is friendly, gym is great). The corresponding attitude, based on these beliefs, would be, "I like gym".

The beliefs that students hold about physical education will be important to this study. If students can articulate their beliefs, they may be able to recount the circumstances that contributed to the development of these beliefs, and to their overall attitude towards physical education. Behavior
is more easily defined and refers to overt or observable acts.

**Attitudes Toward Physical Education**

Having now some sense of the definition of attitude and related terms, the following questions can be asked in relation to attitude and physical education. First, what is known about attitudes toward physical education? Second, how are attitudes formed toward this subject? Third, what is the connection between attitude towards physical education and behavior in class? Finally, what is not known about attitudes toward physical education that would be valuable to know?

The research literature indicates that student attitudes towards physical education vary, although most reports show that the majority (usually 80% or more) of students enjoy the subject (Butcher, 1982; Carlson, 1992a; Coe, 1984; Rice, 1988; Williams & Nelson, 1983).

Research on student attitudes spanned a variety of age groups from college (Campbell, 1968; Keogh, 1962 & 1963; Wear, 1951) to high school, (Brown, 1992; Stewart, Green & Huelskamp, 1991) to middle and elementary school (Cheffers, Mancini & Zaichkowsky, 1971; Martens, 1979). Many of these studies were validation studies of instruments with very few actual results reported. When results were given, the
majority of those surveyed did report favorable attitudes toward physical education.

Research also has been done in countries other than United States (Brown, 1992; Butcher, 1982; Jones, 1988; Luke and Sinclair, 1991; Macdonald, 1989; Macintosh, Albinson, & King, 1981; Macintosh & Albinson, 1982; Williams & Nelson, 1983). Australian, New Zealand, British, and Canadian studies have supported the American literature in that a majority of students report favorable responses to physical education as a subject.

Additional information available from the research literature suggests several factors which may contribute to how and why attitudes toward physical education are formed. These factors include teacher behaviors (Aicinena, 1991; Kollen, 1981; Luke & Sinclair, 1991; Rice, 1988), the competitive nature of most physical education classes (Carlson, 1991 & 1992a; Portman, 1992; Robinson, 1990), the curriculum (Figley, 1985; Kollen, 1981) and gender (Coe, 1984; Luke & Sinclair, 1991; Stewart, Green, & Huelskamp, 1991). These factors provide a starting point for investigation of how attitudes are formed.

**Attitude Formation in Physical Education**

The research literature indicates that attitudes are learned. Accepting this to be the case, the next logical question is, "how are they learned?" Oskamp (1991) defined
attitude formation as "the initial change from having no attitude toward a given object to having some attitude towards it, either positive, negative, or in between" (p.154). He then listed a variety of factors that determine what particular attitudes an individual will form. These are: genetic and physiological factors, direct personal experience, parental influence, group determinants, and mass media. In the following section, each of these categories will be discussed with special reference to physical education.

**Genetic and Physiological Factors**

The medium of physical education, sports and games, favors people of a certain body type and certain physical capabilities, while disadvantaging others. For instance, the endomorph, the uncoordinated, the less aggressive, or the physically awkward child are at an automatic disadvantage in the physical setting. Taylor (1984) stated, "for them (the physically awkward) physical education has no appeal because it provides a public demonstration of their movement inadequacies" (p. 26). Success in physical activity, and therefore in physical education is, in part, a product of body type, coordination, strength, and fitness. Success in physical activity, however, does not always equate with positive attitude towards physical education (Tinning & Fitzclarence, 1992). Nor does the reverse always
occur; being less successful does not always result in a negative attitude towards physical education.

Two other important factors fit in this category: sex and age. Although being born male or female will not influence attitudes, cultural and societal gender norms influence how we view the world. Substantial research literature exists that suggests society has different expectations for men and women in connection with physical activity (DeMarco & Sidney, 1989; Evans, 1984; Mauldin & Meeks, 1990; Scraton, 1992).

Physical education research has offered contradictory information about gender difference and attitudes toward physical education. Luke & Sinclair (1991), for instance, found little difference between eighth grade girls and boys in the way they felt towards physical education. Stewart et al. (1991) at the middle and high school level, on the other hand, found that significantly more boys than girls like physical education class.

The age of an individual also may influence attitudes. For instance, DeMarco and Sidney's (1989) study suggested that the reasons for participating in physical activity change in early adolescence from "having fun" to "improving and/or maintaining fitness." Further, by ninth grade students feel less motivated to do what their parents and teachers advise them to do (Savin-Williams & Berndt, 1990). These factors, combined with puberty and the many physical
changes taking place in adolescent bodies make eighth and ninth grade a crucial time in attitude formation toward physical education (DeMarco & Sidney, 1989; Macintosh & Albinson, 1982).

Direct Personal Experiences

Attitudes formed through individual personal experience usually are stronger than those formed through indirect experience. Two different types of direct personal experience have been identified: salient incidents, (i.e. a single dramatic incident) and repeated exposure (Oskamp, 1991). Most of the research on attitudes has utilized inventories, surveys, or critical incident forms. This type of data gathering has made it difficult to ascertain whether occurrences of one single, powerful incident result in the formation of a positive or negative attitude toward physical education. Some interview-based studies have indicated that repeated exposure to success, praise or failure and criticism has contributed both to attitude formation and attitude changes (Allison, Pissanos, & Sakola, 1990; Carlson, 1991 & 1992a).

Repeated exposure over a long period of time were two factors which Oskamp (1991) found contributed to formation of attitudes in interracial relations. His findings suggest that development of favorable attitudes in this context are more likely to occur in situations which have all or some of the following characteristics: participation is voluntary,
in cooperative activities, between individuals having the equal status, with common or supportive goals and similar belief systems, and in situations supported by authorities or by social custom. Findings such as these may have some transference to other situations and be applicable to the physical education setting. The reverse of these conditions may promote disharmony. An example from a participant in Carlson's (1992b) study illustrated compulsion, a competitive environment, and unequal status:

> My gym teacher was more like a drill sergeant than a gym teacher, so he always pushed everyone to be faster or better than everyone else and I was kind of overweight at that time, so I didn't like to run... I lost my breath and everything. I couldn't do it well. He embarrassed me a lot. I think that is one of the main reasons why I don't like gym now.

Teacher behaviors and the pressure in the physical education environment are well illustrated in the above quotation. Other studies also have identified the important part that teachers and the environment established in the gymnasium play in attitude formation (Aicinena, 1991; Figley, 1985; Koller, 1981; Luke & Sinclair, 1991; Portman, 1992; Robinson, 1990). The influence of the physical education teacher will be discussed further in the discussion on the influence of schools in the group determinants section.

In the physical education setting, pressure appears to come primarily from peers or the teacher. A second
quotation illustrates some of the pressure on students to perform in a physical education environment:

The bases are loaded. There's two out. I'm up to bat... STRIKE ONE... STRIKE TWO. My heart is beating faster. "We want a batter, not a crummy canter!" someone calls out... "STRIKE THREE! YOU'RE OUT!"... As we headed out to the field I hear the others say, "I knew it. She couldn't hit a hippopotamus if we could pitch one to her" "I hate playing with girls." "If only Tony was up before Gina."... "Who chose her for the team anyway?" "Over there, Gina, you take left outfield". No balls ever went to outfield, especially the left outfield. All the action was in centerfield. A nice place where I wouldn't get in anyone's way.

(Smith, 1991, p. 49)

The anecdote encompasses at least some aspects of class atmosphere which may contribute to negative student attitudes: unfavorable peer interactions combined with a competitive environment. Portman (1992) in her study of low skilled students at the elementary level suggested that low skilled performers "received the brunt of critical comments in all competitive situations" (p. 130). In addition, Macintosh et al. (1981) found students who elected not to take physical education had more negative reactions towards performing in front of others than those who chose to take physical education.

In the section on genetic and physiological factors, I stated that certain factors (e.g., strength, size, coordination) assist children to either be successful or unsuccessful in physical activity. Another major contributing component is the skill of students. High skill level may be the partial result of continual exposure and
practice in particular sports. Perhaps a better term for many students is "less practiced" rather than low skilled.

Researchers such as Portman (1992), and Allison et al. (1990) provided examples of how inadequate skill or a particular body type contribute to continuous, unpleasant experiences and often lead to negative attitudes. Conversely, some participants in Allison et al.'s (1990) study recounted successes which led to positive attitudes.

I believe it is important to ask: which came first, the skill or the attitude? This question was prompted by the words of Julie, a twelfth grade student (Carlson, 1992b), "I am not very good at sports. Not at all. It is probably more that I don't like it. I could probably do it if I wanted to. But I am not interested." Such quotations illustrate the importance of investigating the environmental factors which contribute to the development of positive, equivocal and negative attitudes.

Much of what has been written so far indicates that the less successful students develop negative attitudes toward physical education while the skilled, successful performers are positive in their feelings toward the subject. This is not always true (Smoll, Schultz, & Keeney, 1976). Tinning and Fitz Clarence (1992) in their study of physical education and media found adolescents, who enjoy physical activity and sport but find physical education boring... physical activity, exercise and sport are a valued part of their lifestyle and a
central feature in the making of their own biography, yet school physical education is not (p. 301).

Success in physical activity does not guarantee positive attitudes towards physical education. In Tinning and Fitzclarence's (1992) study, personal experiences both in class and out of class, combined with peer pressure and media promotions, resulted in negative attitudes towards physical education, despite students' interest and success in sports and fitness.

**Parental Influence**

Parents' activity patterns and opinions may be influential in the development of their children's attitude towards physical education and sport. Godin & Shephard (1986) found that the strength of the student's intention to exercise was associated with the mother's intention to exercise, the father's current physical activity habits, and the family's socioeconomic status. None of the parental variables, however, helped to explain the exercise intentions of students.

Macintosh, King, and Greenhorn (1978) found that students who elected to stay in secondary school physical education programs had substantially more support from parents and peers that those who choose not take this subject. The father's actual participation in sports activities was a consistent indicator of whether or not a student elected to take ninth grade physical education, regardless of the gender of the student. In a later study,
(Macintosh et al., 1981) it was found that a substantially higher percentage of eleventh grade males who elected to take physical education had fathers who more often were sport participants than were the fathers of those who chose not to take physical education. Similar results were found for eleventh grade females "non-takers" who observed that their mothers were not sports participants. Most physical education studies, however, have not specifically isolated the parental factor.

In contrast, many studies and papers have concentrated on gender issues in physical education, and in several of these studies parents have been cited as a major influence. DeMarco and Sidney (1989) stated that girls's participation in physical education starts to decline at the junior high level. They attributed traditional cultural values as influential in this decline and cited parental influence as an important factor. According to Godin & Shephard (1982) socialization into sport and physical activity begins at home with parents serving as role models. Although this last study referred to physical activity not physical education per se, a parallel may be drawn which suggests that parents may play an influential part in their child's attitude towards the subject of physical education.

Group Determinants

Schools. Schools are secondary only to parental influences in determining students' attitudes in general
Schools have two levels of curriculum--the explicit and the implicit curriculum. The explicit curriculum is referred to as teachers, making deliberative choices about psychomotor, cognitive, affective, and social/interpersonal skills for students to acquire--and then sharing these openly with students (Dodds, 1983, p. 215).

The implicit curriculum is described by Dodds as "an umbrella term involving covert, hidden, and null levels, all of which have in common the characteristic that none is ever raised to the point of teachers sharing them verbally with students" (p. 217).

The hidden curriculum is a sub-category within the implicit curriculum that is "comprised of unplanned and unrecognized values taught and learned through the process of schooling" (Bain, 1975, p. 92). Certain aspects of the schooling process may teach students about the value of physical education without any explicit intention to do so. For example, factors such as the time allotted to the subject, the available facilities, the regard in which physical education is held by staff members and administrators, send covert but powerful messages to students about the status and importance of physical education as a subject.

The lessons students learned from this hidden curriculum may be disclosed indirectly in some of the research literature. Brown (1992) found that 95% of the girls who did not select Physical Education Studies at the
Year 12 level (grade 12) indicated that other subjects were more important to their career plans. Eighty-four percent of the secondary students who did not elect to take physical and health education in Earl and Stennett's study (1987) suggested that other subjects were more important. Evans (1984) suggested that some working and middle class girls who are successful in academic subjects may reject or resist school physical education and sport because it is perceived as a low status, unimportant subject. Finally, 51% of eleventh grade males and 35% of the females who elected not to take physical education in six selected Ontario high schools in Canada stated that "other subjects were more important" (Macintosh & Albinson, 1982, p. 58).

A further issue linking schools, attitudes, and physical education is the connection between student attitudes toward schools and the way students view different aspects of that institution. For example, if students dislike school, do they automatically dislike most or all subjects taught within that framework? More specifically, does this negative attitude carry over into the gymnasium setting? I have not located studies which have connected these two factors.

Peer Groups. The child's peer group becomes increasingly important from grade school onwards (Oskamp, 1991; Williams & Stith, 1974). In some cases, peers will reinforce what has been learned at school and home, further
strengthening already existing attitudes. Peer group pressure may work either for or against physical education. For instance, in the case of girls, peers, together with parents and school, may project the message that participation in certain physical activities is unfeminine (Cockerill & Hardy, 1987; Scraton, 1992). On the other hand, if fitness, participation, and looking good are "in" then the peer culture may encourage a positive attitude towards physical education.

Reference Groups. Reference groups are defined as "groups whose standards and beliefs one accepts and measures oneself against, regardless of whether one is a member of the group or not" (Oskamp, 1991, p. 166). Therefore, reference groups could include the "in crowd", film stars, rock stars, or high profile athletes. The extent of influence of any of these reference groups has not been investigated in connection with physical education. The "in crowd" at school may have decided that to be involved with physical education, is "cool", or definitely "uncool".

Mass Media

By the time the majority of American children finish high school they will have "spent more hours in front of the TV set than in school classrooms, churches, and all other educational and cultural activities combined" (Oskamp, 1991, p. 167). By the age of 10, television and school have replaced the family as the most frequently mentioned sources
of children's information (Oskamp, 1991). Television, radio, magazines, and newspapers influence opinions and attitudes. For instance, Meehan (1988) stated "although the context is fanciful and exaggerated, [referring to sitcoms, comic strips and who-done-its] these portrayals present the parameters of femaleness in our society, an index to acceptable behavior" (p. 103).

The influence of advertisements in magazines should not be underestimated. Duquin (1989), in her study, Fashion and Fitness: Images in Women's magazine advertisements, stated that,

Not unlike athletes who are trimmed, trained, taped, stretched, steamed, starved, driven, drilled and drugged in preparation for their sport performance, women, too, are scientifically prepared with modern technology for the game they are taught to play. The game is gender relations and in this game, women are encouraged to deconstruct their body into parts to be improved (p. 105).

The concept of femininity (dainty, neat, wearing make-up, and fashionably dressed) is reinforced by television. The playing of sports often does not reinforce these qualities. With the emphasis now on fashionable sports attire and fitness, this may be changing to some extent. Nevertheless, muscles and sweat have not been associated with the concept of femininity. Findings from Duquin's (1989) study indicate that "when advertizing does picture a woman after an exercise workout chances are her makeup has not run, the layered-look designers sweats are not wet" (p. 107).
In contrast, sports and men in the media often are associated together. The same programs which emphasize the role girls and women should play portray boys and men in a very different way. Boys are shown participating in the rough and tumble of the sports field. This helps to "make a man" of them. Indeed, not participating in sports may cast doubts on their masculinity (Pronger, 1990; Sabo & Runfola, 1980). Further, male sports are televised more often and dominate the news (Duncan & Hasbrook, 1988). In a study of fourteen popular magazines over a three year period (1985-88), 36% of male models were shown relatively active, while only 14% of women could be placed in this category. In addition, the percentage of women shown vigorously active dropped from 8% to 5% between 1985 and 1988, while the percentage of men in the same category rose from 6% to 11% (Duquin, 1989, p. 103). Finally Duquin found that of all sports costumes, women were most frequently pictured in swim suits, but were rarely shown in or near the water. This type of publicity sends messages to both sexes about the importance of physical activity for males and the importance a good figure for females.

Tinning & Fitzclarence (1992) believe these images are changing. They stated that both males and females are being bombarded with images about the desirability of being fit and slim. They further argued that images presented on television point to the growing disparity between what
physical education has to offer and what is "in" and desirable,

The images presented in these ads [Coke and Reebok shoes], along with many other TV ads and video song clips on shows like MTV, are part of the visual world of adolescent youth. It is a stimulating world in which the body (a slim muscular body) is a dominant icon of desirability. It is a world in which physical activity is unproblematically associated with desirable bodies and a lifestyle of consumption, fun and entertainment. It is a world of images into which school physical education is projected" (p. 293).

The authors believed that much contained in physical education class no longer plays a relevant part in students' lives. Further, they stated that physical education,

is part of an education system which is expected to be entertaining (perhaps only entertaining) by youth who were raised on a diet of television. It [physical education] was also intimately related to sport which itself is considered entertainment (p. 295).

Perhaps because Duquin (1989) analyzed advertisements from magazines, rather than from television and was not specifically concentrating on the effects of media on youth, her conclusions varied somewhat from Tinning & Fitzclarence (1992). She stated that "In these ads, 'the exercise look', not exercise itself, is being sold." Results of this research found that, despite the current health and fitness movement,

the great majority of ads still idealize women as passive, less powerful and less active than men. Women were seldom seen sporting, and when they were, the ads were rarely exempt from sexual innuendos (p. 105).

Kane and Snyder (1989) concluded from their study that sport typing allows women,
to claim parts of their physicality by experiencing for example, their bodies in graceful, aesthetically pleasing ways. But it does not allow a woman to experience her body as an instrument of physical power and aggression as she would by participating in such gender "inappropriate" sports as football, wrestling and rugby (p. 93).

The aspects of sports typing, and stereotyping, and the trend toward fitness should be considered when the influence of mass media on attitude formation is studied.

By using Oskamp's (1991) five major categories (genetic and physiological, direct personal experiences, parental influences, group determinants and mass media) as a framework, much of the knowledge about attitude formation in physical education has been summarized. Throughout the five categories, both direct and indirect references to the self esteem of individuals were made. The categories Oskamp identified appear to contribute to the self concept and self esteem of the individual, which in turn, affect the way the individuals feel about their bodies, and their athletic ability.

Self Concept

Several studies suggested that students with low self esteem often dislike physical education more frequently than students with higher self perception (Figley, 1985; Halas, 1991, Luke and Sinclair, 1991; Macintosh & Albinson, 1982). The words, self esteem and self concept, frequently are used in the physical education literature but rarely defined.
Self concept is defined as "the picture or perceptions that the individual holds of his or her strengths, weaknesses, abilities, values, and temperament" (Raffini, 1993, p.142). Raffini further expanded this definition by adding, "The self concept is a combination of thousands of self-perceptions that vary in importance and in clarity" (p.14). Raffini believed that "beliefs about self are generally stable" (p. 14), and "based on personal perceptions of reality at any given moment, individuals strive to behave in ways that are consistent with the view they hold of themselves" (p. 14-15). Self esteem, a component of self concept, refers to the judgement of merit or value that an individual places on the various facets of the self (Kaplan, 1990). The self concept and self esteem of students may affect their attitudes toward physical education.

This section has highlighted some of the factors which contribute to attitude formation towards physical education. There may be others, as yet undetected. Which of these factors are influential, how they interact with each other, and the intensity of each may differ from situation to situation and individual to individual. There may be, however, some factors which are consistently more influential than others. Finally, once an attitude is formed, it does not remain static. The already influential factors continue to interact. Understanding the forces and
dynamics of how each factor interplays is essential if one wishes to influence students' attitudes.

**Behavior and Attitude**

Most people assume that human behavior is determined by attitudes. Research literature suggests that this is not always the case. Wicker (1969) reviewed the small number of studies investigating this topic and found "it is considerably more likely that attitudes will be unrelated or only slightly related to overt behavior than that attitudes will be closely related to actions" (p. 65). More recently, studies suggest that although not every behavior will indicate the attitude held towards an object, a series of behaviors can serve indicators of attitude (Kiesler, Collins & Miller, 1986).

Inconsistencies between attitudes and the expected connecting behavior are explained by a current view that external pressures and other considerations may cause people to behave in a manner which is contradictory to their attitudes (Freedman, Carlsmith, & Sears, 1974). Fishbein and Ajzen (1975) suggest two interpretations of the "other variables" theory could be made. The first, "moderating effects of other variables" implies as the title suggests, that the relationship between attitude and behavior is moderated by other variables. The second interpretation, "independent effects of other variables," suggests that
other variables act together with attitude to determine behavior. That is, other variables do not interact with attitude, rather they have direct effects on behavior. For instance, a student may hate physical education, but want to be on the honor roll (first variable) and have been taught to behave in school and not to be off task (second variable), therefore this student's behavior will not reflect his or her attitude.

A few physical education studies have detected students who have expressed negative attitudes towards physical education and yet do not demonstrate the corresponding negative behavior. Keogh's (1963) research on extreme attitudes towards physical education (positive and negative) suggested that there was no evidence to indicate that negative attitudes were related to non-participation. Even more directly connected with the "other variable" interpretation were some students in Carlson's (1992a, 1992b) studies. They confessed to using a "hiding disillusions" strategy. They disguised how they felt about class because the rewards for good behavior and participation were high while the consequences for non-participation were severe. These variables influenced students to behave inconsistently with their attitudes. In this situation, the students acted in self preservation, adopting the appropriate, expected, or socially desirable response. As Kiesler et al. (1986) stated,
Attitudes Toward Physical Education: What Is Not Known

This review of the literature about attitudes towards physical education has lead me to detect several gaps in what is known about attitudes. For instance, Fishbein and Ajzen (1975) stated that the relationship between attitude and behavior has been a neglected area of study. This also has been the case in physical education. I have not found any studies which specifically connect attitude towards physical education with behavior in that class. Further, studies have relied on broad survey and questionnaire data that do not provide in-depth understanding of what factors are most important or influential to the students themselves. Only two studies (Carr, 1945; Keogh, 1963) have been located that examined differences between the two extreme groups (those who hold either positive or negative attitudes towards physical education). Both studies were conducted at college level. Finally, attitude change towards physical education rarely has been studied (Brumbach, 1968).
CHAPTER III

METHOD

The purpose of this study was to discover more about formation of student attitudes toward physical education and the relationship between attitude and behavior in this subject. When the study of attitudes is mentioned, most researchers immediately think of quantitative methods of measurement. Psychometric scales, attitude inventories, and semantic differential scales have dominated attitude studies. In addition, questionnaires and critical incident methodology have been employed to identify the factors which contribute to attitude formation.

This study examined the way students feel about "gym", the factors which contribute to their attitudes toward physical education, and the connection between the behaviors they display in class and the attitudes they hold. In order to present a picture of physical education through the eyes of the students, a variety of methods were used. These included interviews, observations, journals, and stimulated recall sessions which used videotapes of physical education classes.

To explain each of these methods, this chapter is divided into four sections: (a) an outline of the study, (b) entry to sites, (c) data collection, and (d) the data analysis. The first section contains an outline of the specifications for the sites and participants and provides
an overview of the study. The second section describes the way I gained entry to the schools and covers questions that were considered at this stage of the research. The third section begins the selection process for determining student participants and continues with a discussion about data collection methods employed to answer the two major questions. The final section covers the way the data were analyzed. This section includes data organization and reduction.

Outline

Two school sites were used for this study, one junior high school and one high school. By limiting the number of schools to two, I could spend more time at each site and explore in more depth the factors that contribute to attitude formation and behavior in these specific contexts.

Four teachers and eight classes (two classes per teacher) were involved. In total, thirty-six students were selected as participants in the interview process. Figure 1 is designed to clarify the final study design.

The two schools were located in an area in New England which provided easy access for the researcher. In searching for the school sites, one major factor was considered essential. I believed that it was very important that the physical education teachers in the selected schools did not "roll out the ball", and that they cared about the
Carrum High School

Teachers
- Richard
- Elena

Classes
- 8/9A
- 8/9B
- 8/9C
- 8/9D

Students
- #
- Attitude
- Sex

Brighton Junior High School

Teachers
- Coach
- Gail

Classes
- Group A
- Group B
- Group C
- Group D

Students
- #
- Attitude
- Sex

M - Male, F - Female
+ positive - negative o equivocal

Figure 1 Study Design
students. (To ensure that these criteria were met, teachers were asked to participate in this study only if I had observed them teach.) Further, these teachers had to agree to the frightening prospect of their students talking to a researcher about their experiences in class—and the teacher.

Among the two schools chosen there were differences in school culture, size, community context, support for the physical education program and varying curricula. While these are important factors to consider when analyzing the data, there is no claim that these sites represent the full range of such elements among public schools. If factors such as school size and location had been a major focus, then many more schools would have been included. By limiting the number of schools, it was possible to examine in depth those particular factors which contribute to attitude formation and behavior within those specific contexts.

To help the reader identify the schools, the programs and the teachers, and to better understand the context in which this study was conducted, a brief profile of the two participating schools is included below. Descriptions of classes and student profiles are included in Appendix A. Pseudonyms are used for all schools and participants.
School, Program, and Teacher Profiles

School profile: Carrum high school. Carrum High School has a student population of approximately 750, covering eighth to twelfth grade. The school consists of predominantly white, suburban middle class students. Sport is very popular in this area and the school athletic program is well supported. The physical education facilities are adequate, but not well maintained. The main gymnasium had dangerously buckled boards that were not fixed until the basketball season was to begin. The standard large gymnasium can be divided in two by a folding door, and a small gymnasium and a room converted to a weight room complete the indoor facilities. Outdoor facilities are ample--three fields offer sufficient space, although the football field is usually unavailable for physical education class.

The physical education staff consists of two full time physical education teachers, Richard and Elena, participants in this study, another half time female faculty member and the athletic director who only teaches one class at the high school level.

Teacher profiles: Richard, Carrum High School. Richard has been teaching and coaching baseball at the high school for over twenty years. He still enjoys teaching. "I find it rewarding. It keeps me young. I think it is probably the best decision that I made--to go into this field."
Richard's main goals for physical education are to teach the students that "physical education or physical activity can be fun, can be rewarding, and is something that they need to be doing lifelong." He hopes students in his class learn teamwork, fair play, socialization skills, enjoyment, and a better understanding of the activity.

Observations of his classes revealed that Richard employs a variety of strategies to motivate students. He uses humor and tries to promote an environment where mistakes are accepted as a learning process. Richard, who pitches for all of his class softball games, describes one way this strategy is put into play,

If I drop the ball, sometimes I am doing it deliberately, I make light of that so they [the students] can [do the same] when they make a mistake ... Mistakes are part of the game and it shouldn't be a negative experience.

In the five weeks of observation of his softball unit, I rarely saw a student strike out in the game. "When I am pitching I am trying to hit the bat more often than not." He called clear strikes "foul tips" to give each student ample chance to hit the ball. "After five or six 'foul tips', when I think that student wants to sit down, I try to sense that and say 'OK, that is strike three'..

During the six week observation, all skill instruction occurred within the game situation. Richard would offer hints on batting, catching and throwing, as well as strategy and tactic ideas. As the previous example indicated, he
tried hard to make all students, regardless of skill or sex, comfortable in his class.

Elena: Carrum high school. Elena has been teaching at the high school for twenty years. She coached for the first five years, but now takes other roles in the school, such as coordinator of multi-cultural activities. She finds teaching, "very challenging... I am constantly evaluating what I am doing and making choices about what I can do to correct it."

Elena has tried a variety of motivational strategies throughout her teaching career. She has kept journals on the students, examining their behavior and based on those observations tried different ways to reach them. For instance, for one year she did not mandate participation from students provided they filled out a sheet describing why they didn't participate, what they did and didn't like about physical education, and what could be done to make it better. She also asks students to evaluate both the program and her teaching at the end of the year, and occasionally will give the students a card and ask them to answer the question, "if there is one thing you would change about physical education what would it be?" Elena expends a lot of energy on preventing name calling and any form of physical abuse in class. She prides herself on being consistent with her students.
Elena would like students to leave physical education class,
with some sort of concept of self and that they have the potential to do things physically, that they could find enjoyable ... and an idea that fitness is an important part of life, not just a requirement that they have to do for four years of their life.

She is, however, realistic about not getting through to all students. "I think that for a lot of them [students] what they actually learn in class is that they have to take it [physical education] ... For some of them they learn that it is gym and not physical education."

Observation of Elena's frisbee classes indicate that she was trying to encourage the girls by introducing rules such as every second pass must thrown to a person of the opposite sex. Little or no instruction on how to throw or catch the frisbee occurred during my observation. Her main emphasis was on inclusion of all class members.

Physical education program: Carrum high school. The physical education program has changed significantly over the twenty years that Richard and Elena have been teaching at the high school. For the past 13 years the teachers have been offering a full coeducation program. Students take physical education twice a week and in most classes they have the choice of three activities, chosen on a sign-up basis. The units usually last five to six weeks. Eighth and ninth grade students are taught together, while sophomores, junior and seniors are taught separately.
Seventeen different activities are offered. These include a variety of team sports and several individual sports, with an emphasis on the lifelong value of the activities. Both teachers used the word "recreational" to describe their program. Physical education uses the same letter grade system as the rest of the school subjects, with an A to F rating. Students are evaluated on changing into suitable clothes for activity and their participation in class.

Although the status of the faculty and their program has improved over the years, physical education is still a marginal subject. The principal is rarely seen in the vicinity of the gymnasium. The gymnasiums were taken over for exams, blood bank, and a variety of other activities while I was observing, leaving the faculty no space to teach an active program in wet weather. Both teachers indicated that their program lacked direction from, and the interest of, the administration.

School profile: Brighton junior high school. Brighton Junior High consists of approximately 500 seventh and eighth grade students. The building also houses an elementary section, comprising kindergarten, first, second, and third grades. The city in which the school is situated, until recently, was supported by several major industries. Several of these factories have closed over the past fifteen years and this has resulted in severe economic problems. Although recently there has been a increase in Asian,
Hispanic and African-American population, the city supports a mainly white population and the school reflects this composition.

There is considerable community support for sporting activities, both at the city and school level. Omar, a male student in this study, elaborated "Brighton has a lot of sport ... Any sport you can really think of we have a league for. And there is a lot of emphasis on extra curriculum sports and activities."

The Principal and Vice Principal present a high profile around the school. They supervise the grounds before school, the cafeteria at lunch time, and often visit the gymnasium. Further, they regularly participate in student-teacher sporting events.

The gymnasium is located close to the administration offices and is of standard design. The dividing doors are only infrequently closed, as the two physical education teachers team teach much of the time. The outdoor area is sufficient, although far from lavish. Budget cuts over the past four years have resulted in the deterioration of physical education facilities and equipment. The equipment used for the gymnastic unit was old and worn. The school has two physical education faculty members. Coach, the male physical education teacher, has taught at the school for twenty years, while Gail has been teaching there for seven years.
Teacher profiles: Gail, Brighton junior high school.

Gail teaches at both the elementary and junior high level within the school. In addition, she coaches track and field hockey and works with the extensive intramural sports program run by the school. Gail describes her aims for students in the physical education program.

"I am looking for the eighth grade students to leave here with an exposure to several different activities, an improved skill level in ball handling skills in particular, with a sense that there are activities that I [the student] want to continue at the high school and get more knowledge about and better at, which also might lead to some lifelong activities.... I guess basically having the willingness to try things that maybe they haven't even tried before, but [to say] "yes I can do that" instead of the "I can't."

Gail's major concern is the lack of skill, and sometimes the enjoyment of the activity, of some students--particularly girls in class. She sometimes alters the activity planned to try to accommodate the range of abilities. At times she has separated the girls from the boys to try to increase the confidence and skill of the girls in an activity.

When asked if she enjoyed teaching, Gail hesitated. She cited numerous cuts as a deterrent to enjoyment. "When we got laid off and they made all the drastic cuts and our classes are really large, I almost feel that I am getting burned out ... I guess I am enjoying it but it is stressful."

Coach: Brighton junior high. Coach's workload includes teaching physical education classes for 30 periods a week. He also has coached basketball, baseball, and football at
junior and the high school levels and he presently coaches varsity basketball at the high school. When asked what he hopes students gain from his class he stated:

Number one - enjoyment for whatever activities we are doing, socialization, not thinking that they are better than anyone else, maybe better in a particular skill, in a particular area, but not better people by any means. Working with each other and at the same time getting some exercise.

He continues,

Attitude, attitude bothers me. I group kids on attitude. If they don't enjoy the activities, if they don't enjoy physical education that bothers me. I want everybody to enjoy it. I know that is impossible but I think our batting average is pretty high.

Coach acknowledges the skill difference between the girls and boys at this school and attributes much of it to the youth clubs of the town that cater far more to boys than girls. He also mentioned their inadequate elementary physical education program. The program at the elementary level is poorly staffed and the emphasis is on gymnastics which he feels ill prepares the students for ball handling activities at the junior high level. He uses teaching strategies such as plentiful positive feedback and careful selection of teams. Observations indicate that during drills and games he was consistently offering constructive feedback.

Although he still enjoys teaching, more recently, Coach has started asking "what am I doing here?" He adds, "But the way the job market is now, and the older you get--it is
double edged sword, almost, you feel like you are getting burnt out but there is really nothing else to do."

The physical education program: Brighton junior high school. The principal of this school proudly describes their physical education program as traditional. This pride is evident as he talks about being one of the only schools in the area that requires regulation physical education uniforms. He praises the work of the physical education teachers and boasts of the high participation rate in classes and intramural activities.

When Coach was asked how he would describe the physical education program he said,

It would be activity. I learned years ago, that people do not want to sit there and listen to me talk.... They like to play games, and there is the rub right there because they are not ready to play games because they don't have the skill. But if you talk and explain something and put them into mini-games that build up to full fledged games. I think that is way to do it for this age level. We don't roll the ball out. We don't create robots that have to do it right away or whatever.

The program includes most of the traditional team sports and a few less traditional activities such as frisbee golf. Units last approximately four weeks. All eighth grade classes participate in the same activities, attending class twice a week. I observed much of the gymnastic unit and all of the floor hockey unit. Grading in physical education is based on attitude and participation. Occasionally, such as for the gymnastic unit, skill is taken into account. The highest grade is rated as outstanding. The average grade is 41
classified as satisfactory and the failing grade is identified as unsatisfactory.

Physical education appears to be better accepted by the rest of the school community than it is at the participating high school. Gail, however, believes that she still has "to work hard to make the administration aware of the fact that I consider physical education as important as the academic classes."

**Gaining Entry**

In order to obtain access to school sites, I first contacted physical education teachers who instructed in suitable programs. I believed that the consent and cooperation of the teachers was essential to the success of the study. Of the two groups involved (teachers and students) I felt that the teachers might feel the most vulnerable, despite the smaller part they played in this study. For this reason, teachers were contacted by telephone, and then by a follow up visit, offering the prospective participants an overview of the study. Indications of teacher insecurity occasionally did surface. For instance, field notes made during the first week of observations at the junior high school read,

Coach, although very welcoming and cooperative, has made comments which alert me to the fact that he is skeptical about what I will find and he is worried about my selection of students.... He made a comment this week about he did not know how much I would get from talking to adolescents as they changed their minds
constantly and getting any sense out of them would be difficult.

When interest was shown by the teachers, a meeting was arranged with the principal of the schools. During this meeting the purpose of the study was clarified and explanations given for how data would be collected, how procedures to protect anonymity would be employed, and what would be expected of each party. Approval was received from both the teachers and principals at two schools, the junior high school and the high school. Following the approval, a follow-up letter was sent to both the principal and teachers to confirm the arrangements.

During these meetings, certain details were discussed with the teachers and administration. These included the length of time that I planned to spend in the school; the number of visits per week and the time per visit; when and where the student surveys would be administered; how and where contact with the potential student participants would be made; how much time would be required of the participating students; when and where the interviews and stimulated recall sessions would take place; the steps that would be taken to protect the individual students' and teachers' identities and confidentiality; and finally what I would provide for the school, teachers, and students in return for their cooperation.

Both the schools and the teachers were promised that I would share my results. Further, I committed to working
with the teachers to revise aspects of the program, if they felt that the results of the study warranted revision either of the curriculum or their teaching styles. The participating student received the benefit of avoiding some study periods, talking to an adult who listened to them, and during their group interviews, being with their friends.

Teachers

The major focus of this study was on student attitudes toward physical education—from the viewpoint of the students. Information was sought from teachers for three reasons. First, the information gained from the teachers supplemented the background details already obtained from the students. Second, the interview provided information about the strategies that teachers employ to encourage positive attitudes. These data were useful to help frame the study and increased my knowledge of the school context. Third, interviews with the teachers generated data for further research.

Each teacher was asked to sign an informed consent contract (Appendix B.1). This contract was important because it alerted them to all the aspects of being involved in a research study. This contract established in writing the following: (a) the purpose of the study, (b) what was expected of the participants, (c) how the rights of the participants would be protected, (d) what risks they may be taking by participating in the study, (e) their rights to
review material or withdraw, and (d) how the results of the study would be disseminated.

Before the student participants were chosen, the teachers were asked to rate each student's attitude in the chosen classes. The teachers sorted cards containing each student's name into one of three categories: students perceived to have positive attitudes were placed in one category, those who held more equivocal attitudes in another, and those understood to possess negative attitudes were sorted into the third category. All of the teachers requested a fourth category. At the junior high school, this new category was placed between the equivocal and the negative section. At the high school, both teacher asked to create an fourth category between positive and equivocal. The card sorting session were audiotaped, and the teacher was asked to explain aloud why each student was placed in the particular category. These data provided information about how teachers rated students in their own minds, as well as supplied additional information about the students.

The informal discussions with the teacher took place before and after classes. The structured, open-ended interview was conducted during the fifth or sixth week, at a time suitable to the teacher and researcher. The time was chosen purposefully to reduce the risk of reactivity by the teacher. The session covered information about the particular class being observed, the various students in
that class, and the strategies teachers employed to maintain or develop a positive attitude toward class (Appendix C.1). Although teachers were aware of the students chosen to be interviewed, details of the various individuals' disclosures were not shared.

**Students: Selection Process**

Once access to the school had been arranged, student participants were sought. As mentioned above, eighth and ninth grade students were selected for this in-depth study. They were asked to reflect on the factors which contributed to a particular attitude toward physical education. At eighth grade and above, most students possess the mental capacity to reflect on past experiences and the oral and writing skills to communicate such information. Eighteen students from the junior high school level (all eighth grade students) and eighteen students at the high school level (11 ninth grade students and 7 eighth grade students) served as participants. These students (N=36) were grouped into three categories: those who held positive attitudes, those who held negative, and those who held equivocal or mixed attitudes towards physical education.

Gender difference is a factor that has been mentioned in the research literature with some conflicting results (Coe, 1984; Luke & Sinclair, 1991; Keogh, 1962; Williams & Nelson, 1983). Accordingly, the research proposal called for an equal number of boys and girls to be selected as
participants. For reasons discussed later in this chapter, the final distribution of sex was twenty-six females and ten males.

Although identification of these student participants was not a major focus of this study, the importance of selecting appropriate students cannot be minimized. The literature review revealed that almost all the research on attitudes toward physical education has used some form of questionnaire, inventory, or other quantitative method of inquiry. As a preliminary instrument to scan large numbers in order to select a small number of students, this type of methodology is efficient and effective. I used a simple survey instrument (Appendix D), along with my observations and teachers' ratings of student attitudes, to obtain student participants with varying attitudes towards physical education.

Students were requested to place their name on the survey, for future identification. This was necessary in order to match teacher ratings, observations, and surveys. Because of this requirement, parental consent forms (Appendix B.2) and student informed consent (Appendix B.4) were required before students completed the survey. Once the necessary forms were returned, the selected eighth and ninth grade classes were surveyed either during physical education classes or a study period. Completion of the survey took a maximum of ten minutes.
Student survey returns were sorted into three piles, those who were consistent in circling the same letter in statements 1 and 4 were placed in the same category. For instance, students were placed in the negative category if they circled the following on the survey.

1c. I dislike gym

and

4c. I don't like coming to gym very much. I would rather be somewhere else. Gym may be good for other people but I don't think it is of much benefit to me. If I could choose not to take gym, I would not take it.

Those who were inconsistent in their answers or who circled 1b and 4b were placed in the equivocal attitude category.

Each category was then sorted by sex. Adequate numbers of students of both sexes were available from which to select participants in the positive and equivocal attitude category. There were insufficient numbers, however, in the negative attitude category to provide the proposed distribution of gender (no males meeting the candidate criteria were available). The final breakdown of students whose returns made them potential candidates for selection is shown in Tables 1 and 2 (p. 68).

To further reduce the number of candidates, I also observed physical education classes at each school. The first two observations of each class were designed to get a general feel for the class and observe students I believed would be suitable participants. In addition, I considered all the details the teacher had mentioned during the student
ratings session and checked each student's timetable to see if group interviews were possible.

Once all this information was compiled, I compared each student's observed behavior with the attitude they indicated on their survey. I selected a combination of students: those whose behavior was consistent with their professed attitude, and those whose behavior appeared to contradict their survey responses. Finally, I wrote a rationale for why I wished to select certain students and discussed the selection of each student with my peer debriefer and a committee member.

The original plan called for twelve students to be selected from each school. Once in the field, however, it became apparent that a larger number would provide both more flexibility in scheduling interviews, and would ensure against an unacceptable level of subject attrition. Accordingly, the number selected from each school was increased to twenty-four. Students indicating that they would be willing to participate were given a document similar to the teachers' informed consent contract, listing the details of the study and the rights of the student (Appendix B.5). They also were given a consent form to be signed by a parent or guardian. (Appendix B.3). To assist the reader in following the complex order of participant selection the complete sequence for student selection is provided in Appendix E. Appendix F contains a chart in
which information about the selected participants is tabulated. This chart provides a summary of the student profiles which can be read in Appendix A.

Data Collection

The first aspect investigated in this study concerned the factors that influence attitude formation. The majority of the data were collected through group and individual interviews. Selected material also was obtained from student journals.

Group Interviews

Students were asked to be involved in two tape recorded focus group discussions, each group consisting of three students—with myself as the moderator. Although the questions in the guide (Appendix C.2) provided a focus and structure to the session, they also allowed flexibility. The questions concentrated on the background of the students, their experiences in elementary school physical education and sport, their family activity patterns, and their professed attitude toward school and physical education. To help all students to contribute equally, I employed the use of a question sheet. Each student was asked to list some ideas before the interview began, encouraging each of them to reflect on their own experiences and reduced the influence of others on their initial answers. Unfortunately, the writing also took more time.
than anticipated. By the second interview, when the participants were more relaxed, it was possible to use the question sheet only as a guide.

Once the tapes were transcribed, a second interview was conducted. This second session allowed follow-up and clarifying questions, and concentrated more specifically on factors which appeared to contribute to attitude formation towards physical education (Appendix C.3). Four of the five categories suggested by Oskamp (1991) were discussed: direct personal experience, parental influence, group determinants, and mass media. The students also were asked about any memories they retained of expectations and anticipation of physical education as they moved from elementary to junior high school, or middle school to high school. Genetic and physiological aspects were not included in group interviews in order to prevent possible student embarrassment, although this subject occasionally was raised by the students themselves.

These interview sessions fitted into the length of a school period, which ran for approximately thirty-five minutes. Occasionally, due to absent students or timetable changes, the group interview would consist of only two students, or the script would be used for an individual interview.
Journals

At the end of the first interview, the students were asked if they would be willing to keep a journal about their physical education experiences for three weeks. A brightly colored journal with specific questions was provided (Appendix G). The purpose of this journal was to obtain further information about what factors the students viewed as attractive or unattractive and how and why they felt as they did in physical education class. At the junior high level there was a 67% journal return rate. At the high school, because the study ran into the end of the year, with physical education classes combining and exams taking place, no journals were returned. Although the journals helped confirm the interview data, because of the small return rate, information obtained from them was not used in the final analysis.

The second aspect of the study under investigation was the link between attitude toward physical education and behavior in physical education class. The main data collection strategies employed were observations, videotaped classes, and stimulated recall sessions.

Observing and Videotaping Classes

Classes were observed over the period of four weeks. At least two lessons per class a week were observed and at least one class a week was videotaped. Each of the selected students was observed throughout class for a specified
amount of time (usually one or two minutes depending on the activity) by systematic rotation. Field notes were taken and consistencies and inconsistencies with the students' expressed attitude were noted. Physical education lessons usually follow a set format: warm-up, an introduction to the activity, practice activities, and a game. After observing the pattern, I divided each segment of the lesson into thirds and observed each student for equal amounts of time during that part of the class. Videotaping of some sessions allowed repeated observation of the class and detection of some incidents that otherwise might have been missed.

**Stimulated Recall Sessions**

Each student participant was asked to attend a stimulated recall session. Most of these were combined with an individual interview. Because of time constraints and scheduling difficulties, two students occasionally attended the stimulated recall session together. These combined sessions, provided the students were compatible, worked well. In stimulated recall sessions, the student(s) viewed a pre-selected section of the video-taped class and talked about their behavior in physical education and any apparent consistency or inconsistency with their attitude toward physical education (Appendix C.4). In addition, students were asked to describe their behaviors in physical education class and encouraged to reflect on how these behaviors appeared to an observer and the teacher. When these
sessions were done individually they provided the student with the opportunity to share information which they may not have been willing to express in a peer group interview.

I was concerned about the presence of the camera in the gymnasium and how it might affect student behavior. At each stimulated recall session, participants were asked what effect they felt the camera had on their performance. Most responses were similar to Vanessa, "At first I was a little embarrassed and then I forgot it was there." For the first few times, they were conscious of its presence. Many believed that the camera did not change their behavior at all, but others made confessions similar to Michelle, who admitted to being herself, "except when I was doing the exercises, I started to do them all good." Having the camera as a constant presence in the gymnasium for three to four weeks resulted in the students becoming accustomed to its presence and I believe that student and teacher conduct, if it altered at all, had returned to original behavior by the second week.

Pilot Study

Before entering the sites, a pilot study was conducted to test several aspects of this investigation. The pilot study included videotaping classes, observing physical education classes and taking field notes, testing the survey on one class, asking teachers to rate students' attitudes, conducting stimulated recall sessions with several students,
and asking students to keep journals for a two week period. The group and individual interviews of both teachers and students had been piloted earlier. Appendix H outlines the pilot study in more detail.

**Research Timetable**

I spent six weeks in each school. As the two sites were studied separately, time in the field was twelve weeks. Before the official weeks of observations began, I went to each school, spoke to the selected classes, and explained the raffle which would be used to increase the return of the parent consent forms (Appendix I).

The first formal week at each site consisted of observations, issuing the survey, and asking teachers to rate students' attitudes towards physical education. From these data, I selected possible student participants. These students were contacted and if they were agreeable, informed consent contracts were issued.

The second week involved observations and contacting the students, securing the second parent consent form, obtaining student study period times, and sorting participants into compatible groups for the interviews. Group interviews did not start until the third week. Students who agreed to keep journals began them in the third week and continued for a duration of three weeks. During that first week, and the following three weeks at the site, observing and videotaping each class occurred twice a week.
Informal discussions with the teachers and students took place before and after the observed classes.

During the fourth and fifth weeks, stimulated recall and individual interview sessions were conducted with students. These sessions centered around the consistency or inconsistency of attitude and student behavior. These sessions also provided an opportunity for students to disclose information of a more sensitive nature.

The second group focus interview occurred in week three, four or five, while the structured teacher interviews took place in week five or six. A time-line is provided (Appendix J) which may assist readers in clarifying aspects of the study.

**Data Analysis**

The data obtained from this study were divided into five categories: 1) surveys, 2) interview material, 3) field notes, 4) videotapes, and 5) informal discussions with teachers and students. The analysis of each type of data will be discussed separately.

**Surveys.** The selection of student participants was discussed above. The positive, equivocal, and negative responses by males and females and junior high students and high school students were separated. This information gave some indication of possible differences among the three attitude groups.
Interview material. Each interview was transcribed and placed into a computer program (Ethnograph). Each shortened line was numbered and incidents or units identified and placed in tentative categories and coded. Oskamp's (1991) categories of attitude formation provided a starting point for this coding. Various reported behaviors also were separated into categories. The elaboration of the coding procedure is provided in a later section. Using the constant comparative method (Glaser & Strauss, 1967; Grove, 1988; Lincoln & Guba, 1985) units were included or rejected and categories identified. The assistance of my peer debriefer proved invaluable during this process.

Field notes. Field notes were reviewed, extended, and entered into the computer base as soon as possible after the observation. Observer comments were added, along with other observations about the class (e.g., gender, skill level, ethnic background), the teacher, the activity, and other information about the program or school that added to my ability to describe the context of the class. A file was kept for each student participant and observations about this student were entered into their individual file.

Videotaping and stimulated recall session. The videotapes were previewed carefully and excerpts which demonstrated incidents concerning any of the participants were extracted for possible use in the stimulated recall sessions. Each videotape was viewed to extract information
about the participants' skill level and their participation in each class.

The methods used to calculate skill and participation varied depending on the activity being taught. For the softball unit, the participants' catching, throwing and batting skills were coded, using the skill levels identified by Graham, Holt/Hale and Parker (1987, p. 417-462). In ultimate frisbee, the number of catches and throws and their success rate were tallied. A similar system was used for floor hockey, where the number of touches of the puck were counted. Finally, in the gymnastic unit, a simple point system was devised which rated the ability of the participant in the gymnastic skills. Zero was awarded if the skill was not attempted or was completely unsuccessful. One point was given if the participant had some form of success. The participant was awarded two points if the skill was successful, although form was lacking. Finally, a score of three points was given if the student completed the skill with correct form. Intra-observer coding was used (Darst, Zakrajsek, & Mancini, 1989), and the percentage of agreement between the two coding sessions was 98%.

Any other relevant information gleaned from the tapes was added to the field notes. The audiotaped stimulated recall and individual interview sessions were transcribed, included in the Ethnograph base, and coded.
Informal discussions with teachers and students. Notes based on these discussions were written as close as possible in time to the actual conversation and subsequently were placed in the ethnograph base and coded.

Organization of Material and Coding

As the data on individual participants and their class accumulated, I began to compile a profile of each class and the students' participation in that class. The organization of the data was crucial to the analysis process. Three major organization codes were used. First, each individual student was coded, so that information relevant to one student could be separated from all other data. The individual student participant files contained all data pertaining to that student. This information allowed each student to be viewed as an individual while analysis of these files could indicate common attitude-forming factors among all thirty-six students.

Apart from the individual coding, information about students who had a common attitude toward physical education was coded (i.e., those with negative, equivocal, or positive attitudes). The grouping of these data allowed identification of factors distinctive to that group and permitted comparisons between groups. Finally, a gender code allowed all data pertaining to one sex to be recalled.

As implied, data analysis began concurrently with data collection. Eventually, however, the burden of field notes
and transcribing resulted in most of the analysis being done subsequent to data collection. To assist organization at the onset, seven categories, with numerous sub-categories were used to sort data. These categories were based on the findings of research literature and were expanded as analysis continued.

The first category was labelled "overall attitude toward physical education." All sections of transcripts or behavior which indicated the students' overall attitude toward the subject were coded. The next five classifications were taken from Oskamp's categories of attitude formation: genetic and physiological factors (age, sex, body type, coordination, etc.), direct personal experiences (including skill, teacher and peer interaction, and competition), parental influence, which was expanded to family influences, group determinants (school, peer groups, reference groups), and mass media.

The final category concentrated on student behavior. Field notes and videotapes were analyzed carefully to identify the various student behaviors in physical education class. The research literature provides a guide to some student behaviors in the gymnasium (Carlson, 1992a, 1992b; Griffin, 1983, 1984, 1985; Portman, 1992; Tousignant, 1982). The data were compared with behaviors described in the literature. Finally, participants' behaviors were compared
categories and the sub-categories that developed as analysis continued.

The final data set included fifty-five student interviews (individual and group), four teacher interviews and eight student attitude rating sessions. In addition, field notes and videotapes were included. Naturally, working with this amount of material, the importance of accurate coding became increasingly important. The sub-categories became more and more numerous as coding progressed. This division, provided it remained under the same category, allowed me to see more easily what aspects were most important within each category. During the analysis stage, some of these sub-categories again were combined.

Throughout the whole data collection process, a researcher's log was kept. In this log I recorded questions that arose from the study, developing themes or categories, and any working hypothesis. The log also contained my ongoing comments and concerns about the study.

Establishing Trustworthiness

The quality of research, both quantitative and qualitative, is affected by researcher bias. In order to address this matter, I utilized two methods suggested by Lincoln and Guba (1985), member checks and peer debriefing.

**Member checks** involve returning to the participants with the gathered data and offering them the opportunity to
clarify points that they feel misrepresent their views. The second student interview and the individual/stimulated recall session provided opportunities to clarify points unclear from the first interview with the student participants. The participating teachers were given the transcripts of their interview and had two weeks subsequent to the end of the data collection at the school to rectify any errors. All data gathered from informal discussions were shared either in written form with the participants or clarified verbally.

Peer debriefing is used to address researcher bias, discuss methodology, and review themes, categories, and reduction of data with an impartial peer. A graduate student who was familiar with qualitative research, and was an educator outside the field of physical education, agreed to serve in this capacity.

Prior to the commencement of research, meetings were held to familiarize the peer debriefer with all aspects of the study. One session concentrated on my biography as a student, a physical education teacher, and a teacher educator in order to identify previously unrecognized sources of bias. Once research began, peer debriefing meetings were held on alternative weeks. Among other functions, the peer debriefer coded interview data separately and then discussed the differences between my coding and hers. She assisted in the process of combining
categories in the later stage of analysis and helped give some distance to my work by providing an outsider's perspective on the data. Access to all data and the researcher's log was available to the peer debriefer throughout the study.

A further debriefing process was provided through discussion of the ongoing study with committee members. I met with the chair of my committee weekly and during these sessions methodology was discussed, problems with the study addressed, and developing themes and categories reviewed. Access to all material pertaining to the study was available to committee members.

Naturally, the participants of this study, the thirty-six individuals whose stories I am presenting in this chapter, brought with them different personalities. Some were forceful and talkative, others shy and quiet. Some were willing to confide and trust me as a researcher, while yet others kept their reserve. In addition, some students had developed the mental capacity to look beyond the "gym is fun or boring" stage, and contemplate those issues at a deeper level. Further, some had the verbal skills and the ability to articulate those thoughts. Others did not. Finally, some were more eloquent in the expression of these feelings and ideas.

To place more emphasis on the words of the students who presented their thoughts in a more eloquent, thoughtful
fashion and ignore, for instance, the special education students who found articulating those thoughts difficult, would be easy. To safeguard against this and also to prevent selection of quotations simply because they supported hypotheses that I might hold, several precautions were taken. First, I tallied the number of incidents which contributed to the categories and counted these only once for each student. Second, I kept a tally of the number of times each student was mentioned or quoted, particularly in the original analysis. When the voices of some students were not heard, I returned to the data and attempted to reduce this disparity. Finally, I searched for negative cases that did not support the model presented in this chapter (these are noted in Chapter IV).

Awareness of the researcher's background pertaining to this topic is important for background knowledge for those reading this research. Therefore, the researcher's autobiography is included in Appendix L.
CHAPTER IV
PRESENTING THE DATA

When students enter a new class, they bring with them different experiences, beliefs, and skills. They enter the gymnasium with expectations and an image of what they believe physical education should be. These expectations have come from many sources: previous physical education experiences, input from their family, peers, media, and their exposure to sport and the successes and failures in sporting activities. Students enter with varying degrees of self esteem and maturation levels and come in many different body shapes and sizes. As they pile into the bleachers for the traditional first day introduction at their new junior high or high school, some cannot wait to demonstrate their expertise. Others are anxious or scared because their previous experiences have been negative.

The students now interact with the physical education faculty, new peers, a different curriculum, and possibly new administration and classroom teachers—a totally fresh environment. The physical education "classroom", combined with the total school experience, now will exert its own influence. Both the students and the teachers bring to the gymnasium certain expectations. The interaction of all these factors either confirm already present student attitudes, or begin to alter and reshape the way students view, feel, and react toward physical education class.
All of this is influenced by a wider cultural context, which provides the framework for these interactions.

The first section of this chapter deals with the survey results. Although the survey was primarily used to select student participants for the study, the responses indicate the attitude of 150 students toward physical education.

In the second section, a model showing the major factors which influence attitude toward physical education, is presented. This model, developed from the data analysis, combines the major factors which influence students' attitudes from outside the school environment (societal context) and those that affect students from within the physical education class and school environment (school context). These factors are collectively considered within the cultural context.

In section three, differences within the model for the separate groups (sex, skill level, school level and attitude) are discussed. The model remains the same, but the way certain interactions take place within these factors differ. For example, teachers were an important influence on all students, regardless of attitude. The way teachers interact with low skilled students, however, may differ from the way they behave with higher skilled students. This difference could contribute to the formation of certain attitudes. Finally, in section four the behaviors of the students are explored. Differences and similarities in
similarities in behavior between students of varying attitudes are reviewed.

Because of the substantial number of participants in this study, the reader may have difficulty remembering which participant is in which category, as well as other relevant details. To reduce this problem Appendix A contains a brief profile of each student. For a quick summary of much of this information, a summary sheet (Appendix F) has been provided. Finally, after each quotation, in addition to stating the participant's name, I have placed a symbol in parenthesis to represent the way each student felt about physical education. A (+) represents a positive attitude, (0) indicates an equivocal attitude, while (-) illustrates a negative attitude.

Participants in this study used the word "gym" to refer to physical education. Therefore, although the gym is the venue of the class, not the subject, the two words (gym and physical education) were used synonymously during student interviews. In this manuscript, gym is used in context with the words of the students.

Survey Results

One hundred and fifty students were surveyed in order to select the final thirty-six participants. (See Appendix D for a copy of survey.) Of this 150, 100 were from the junior high school level and 50 from the high school.
overall figures, combining the junior high and high school participants are displayed in Table 1, while the separate figures for the junior and high school are in Tables 2 and 3 respectively.

Table 1
Overall (Junior High and High School): Response to Survey on Attitudes Toward Physical Education

<table>
<thead>
<tr>
<th>ATTITUDE</th>
<th>MALE  (65)</th>
<th>FEMALE (85)</th>
<th>TOTAL (150)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIVE</td>
<td>48 (74%)</td>
<td>36 (42.5%)</td>
<td>84 (56%)</td>
</tr>
<tr>
<td>EQUIVOCAL</td>
<td>12 (18%)</td>
<td>36 (42.5%)</td>
<td>48 (32%)</td>
</tr>
<tr>
<td>NEGATIVE</td>
<td>5 (7%)</td>
<td>13 (15%)</td>
<td>18 (12%)</td>
</tr>
</tbody>
</table>

Table 2
Overall Junior High School Response to Survey on Attitudes Toward Physical Education

<table>
<thead>
<tr>
<th>ATTITUDE</th>
<th>MALE  (40)</th>
<th>FEMALE (60)</th>
<th>TOTAL (100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIVE</td>
<td>31 (77.5%)</td>
<td>26 (43%)</td>
<td>57 (51%)</td>
</tr>
<tr>
<td>EQUIVOCAL</td>
<td>9 (22.5%)</td>
<td>26 (43%)</td>
<td>35 (35%)</td>
</tr>
<tr>
<td>NEGATIVE</td>
<td>0 (0%)</td>
<td>8 (14%)</td>
<td>8 (8%)</td>
</tr>
</tbody>
</table>
Table 3

Overall High School Response to Survey on Attitudes Toward Physical Education

<table>
<thead>
<tr>
<th>ATTITUDE</th>
<th>MALE (25)</th>
<th>FEMALE (25)</th>
<th>TOTAL (50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIVE</td>
<td>17 (68%)</td>
<td>10 (40%)</td>
<td>27 (54%)</td>
</tr>
<tr>
<td>EQUIVOCAL</td>
<td>3 (12%)</td>
<td>10 (40%)</td>
<td>13 (26%)</td>
</tr>
<tr>
<td>NEGATIVE</td>
<td>5 (19%)</td>
<td>5 (20%)</td>
<td>10 (20%)</td>
</tr>
</tbody>
</table>

The reader should be aware that some students in each of the classes did not complete the survey. Some decided that they did not wish to take part while others did not return the relevant consent forms. At the high school 59% of the eligible students completed the survey, while at the junior high school level, there was a higher response of 68%.

Fifty-six percent of all students circled the response indicating that they liked physical education and would be willing to participate in this subject if it was offered as an elective. Thirty-two percent indicated that they liked physical education at least some of the time, while twelve percent circled responses which indicated dislike of the subject (Table 1). In some classes there were no negative responses. (Tables 4-11, p. 70-72 show the responses in individual grades.) The overall results, therefore, were reasonably positive for the participating schools.
A breakdown of the figures by sex indicate that there was a considerable difference between male and female responses. At both school levels, over 70% of the males responded positively to the survey, as opposed to approximately 40% of females (Table 1). Further, at the junior high school level, not one boy circled a negative response (Table 2). Negative responses were higher at the high school, despite the fact that at this level students were offered a choice of teachers and a choice of activities.

Table 4
Junior High School Group A (JH-A): Response to Survey on Attitudes Toward Physical Education

<table>
<thead>
<tr>
<th>JH-A Attitudes</th>
<th>Male (10)</th>
<th>Female (16)</th>
<th>Total (26)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>8 (80%)</td>
<td>8 (50%)</td>
<td>16 (61%)</td>
</tr>
<tr>
<td>Mixed</td>
<td>2 (20%)</td>
<td>7 (44%)</td>
<td>9 (35%)</td>
</tr>
<tr>
<td>Negative</td>
<td>0 (0%)</td>
<td>1 (6%)</td>
<td>1 (4%)</td>
</tr>
</tbody>
</table>

Table 5
Junior High School Group B (JH-B): Response to Survey on Attitudes Toward Physical Education

<table>
<thead>
<tr>
<th>JH-B Attitude</th>
<th>Male (10)</th>
<th>Female (9)</th>
<th>Total (19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>9 (90%)</td>
<td>5 (55%)</td>
<td>14 (74%)</td>
</tr>
<tr>
<td>Mixed</td>
<td>1 (10%)</td>
<td>3 (33%)</td>
<td>4 (21%)</td>
</tr>
<tr>
<td>Negative</td>
<td>0 (0%)</td>
<td>1 (11%)</td>
<td>1 (5%)</td>
</tr>
</tbody>
</table>

70
Table 6

Junior High School Group C (JH-C): Response to Survey on Attitudes Toward Physical Education

<table>
<thead>
<tr>
<th>JH-C Attitude</th>
<th>Male (10)</th>
<th>Female (20)</th>
<th>Total (30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>6 (60%)</td>
<td>6 (30%)</td>
<td>12 (40%)</td>
</tr>
<tr>
<td>Mixed</td>
<td>4 (40%)</td>
<td>10 (50%)</td>
<td>14 (47%)</td>
</tr>
<tr>
<td>Negative</td>
<td>0 (0%)</td>
<td>4 (20%)</td>
<td>4 (1%)</td>
</tr>
</tbody>
</table>

Table 7

Junior High School Group D (JH-D): Response to Survey on Attitudes Toward Physical Education

<table>
<thead>
<tr>
<th>JH-D Attitude</th>
<th>Male (10)</th>
<th>Female (15)</th>
<th>Total (25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>8 (80%)</td>
<td>7 (47%)</td>
<td>15 (60%)</td>
</tr>
<tr>
<td>Mixed</td>
<td>2 (20%)</td>
<td>6 (40%)</td>
<td>8 (32%)</td>
</tr>
<tr>
<td>Equivocal</td>
<td>0 (0%)</td>
<td>2 (3%)</td>
<td>2 (1%)</td>
</tr>
</tbody>
</table>

Table 8

High School Group A (HS-8/9A): Response to Survey on Attitudes Toward Physical Education

<table>
<thead>
<tr>
<th>8/9A ATTITUDE</th>
<th>MALE (2)</th>
<th>FEMALE (11)</th>
<th>TOTAL (13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>2 (100%)</td>
<td>8 (73%)</td>
<td>10 (80%)</td>
</tr>
<tr>
<td>Equivocal</td>
<td>0</td>
<td>3 (33%)</td>
<td>3 (20%)</td>
</tr>
<tr>
<td>Negative</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 9

High School Group B (HS-8/9B): Response to Survey on Attitudes Toward Physical Education

<table>
<thead>
<tr>
<th>8/9B ATTITUDE</th>
<th>MALE (8)</th>
<th>FEMALE (3)</th>
<th>TOTAL (11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIVE</td>
<td>8 (100%)</td>
<td>1 (33%)</td>
<td>9 (82%)</td>
</tr>
<tr>
<td>EQUIVOCAL</td>
<td>0</td>
<td>2 (67%)</td>
<td>2 (18%)</td>
</tr>
<tr>
<td>NEGATIVE</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 10

High School Group C (HS-8/9C): Response to Survey on Attitudes Toward Physical Education

<table>
<thead>
<tr>
<th>8/9C ATTITUDE</th>
<th>MALE (11)</th>
<th>FEMALE (3)</th>
<th>TOTAL (14)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIVE</td>
<td>5 (45%)</td>
<td>0</td>
<td>5 (36%)</td>
</tr>
<tr>
<td>EQUIVOCAL</td>
<td>2 (18%)</td>
<td>0</td>
<td>2 (14%)</td>
</tr>
<tr>
<td>NEGATIVE</td>
<td>4 (37%)</td>
<td>3 (100%)</td>
<td>7 (50%)</td>
</tr>
</tbody>
</table>

Table 11

High School Group D (HS-8/9D): Response to Survey on Attitudes Toward Physical Education

<table>
<thead>
<tr>
<th>8/9D-ATTITUDE</th>
<th>MALE (4)</th>
<th>FEMALE (8)</th>
<th>TOTAL (12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSITIVE</td>
<td>2 (50%)</td>
<td>1 (2%)</td>
<td>3 (25%)</td>
</tr>
<tr>
<td>EQUIVOCAL</td>
<td>1 (25%)</td>
<td>3 (38%)</td>
<td>4 (33%)</td>
</tr>
<tr>
<td>NEGATIVE</td>
<td>1 (25%)</td>
<td>4 (50%)</td>
<td>5 (42%)</td>
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</table>
Factors Which Influence Students Attitudes Toward Physical Education: A Model

The model (Figure 2) began as an attempt to conceptualize the complex interaction of factors which influence students' attitudes toward physical education. Pieces of this model were added, shifted, or deleted as the analysis of the data continued, and as I began to realize that my interest in attitude formation toward physical education was only a microcosm within a far larger frame. I found that because the subject area works through a physical medium, attitudes toward the body, fitness, sport, and cultural roles for males and females, all contributed to the way physical education was viewed. All of this was controlled by the cultural context in which the participants (and the investigator) live.

Introduction to Model

From within this cultural context, and because of it, certain factors interact to contribute to the expectations that the participants in this study had toward physical education. The contents of the cultural context, positioned at the top of the model, is specific to the North American culture. Within this framework, I identified three general categories of influence which were particularly pertinent to this subject: gender, idolizing of elite sports people, (although they are viewed as entertainers), and a compartmentalization of the body and mind. The cultural
Figure 2 Model Illustrating the Factors Which Influence Student Attitudes Toward Physical Education
context affects both the societal and school contexts, as the arrows linking the three indicate, and the following explanation will demonstrate. Each of the included factors then will be examined in greater depth and examples given from the data to support the inclusion of each.

The elements within the cultural context affect the way media present information and images (represented by the broken line). The family is affected by the larger cultural framework (dotted line), but also is bombarded daily by the values that the mass media espouses (solid line from mass media). The attitude of the family, combined with continual inputs of information and advertising by the media, contributes to the way the participants view themselves (their self concept) as represented by the large oval. The individuals internalize the images and expectations and endeavor to discover how and where they fit, what elements they should accept or reject, and how they measure themselves in this environment. Although self concept could embrace other aspects, the participants' self esteem level appears to be the most influential element in my data set, and therefore is included in the self concept section.

Four boxes extend from the self concept oval and represent factors found to be important to participants: previous physical education experiences, perceptions of fitness, peers, and exposure to sport outside of the physical education class and success in this medium. Skill
level, because of its close connection to sporting success, is incorporated within the sport component. These four factors are influenced by (and in turn, influence) the self concept of each individual. Naturally, these factors do not work in isolation and the overlap of boxes is intended to suggest the possibility of relationships (for instance, between peers and sport). Similarly, the societal context, as a whole, affect and is affected by the cultural context, as illustrated by the double-headed arrows. The combination of all the societal factors lead students to develop certain expectations for physical education, and this, in turn, helps form their attitude toward the subject.

The right-hand side of the model, titled School Context, represents the components within the current school environment which influence the way students view physical education. Analysis of the data indicated that four major factors were involved: the personality and behaviors of the physical education teachers, the curriculum, the school, and the environment in the gymnasium (of which peer influences form a part.)

The teachers were found to be a pivotal factor. They designed and implemented the curriculum, had some effect on the way physical education was viewed by the rest of the school faculty, and had a strong influence on the environment of the physical education class. Peers also
were influential in affecting how the environment in the gymnasium was perceived.

Again these factors cannot work in isolation and the double headed arrows linking the cultural context, with the societal and school contexts illustrate this interrelatedness. Most of these factors work in a reciprocal arrangement, substantiating, supporting, or changing the way participants relate to their body and, as a result, the way they feel toward fitness, sport, and physical education.

Cultural Context

Culture, with its network of attitudes, values, meanings, and ideologies, is intimately connected with its structure, which include the patterns of social institutions, productive arrangement and power relationships (Richardson & Lambert, 1985). The connection between attitudes, values and meanings identified from the students' words and the family and school (social institutions) were evident throughout the interview transcripts. For instance, the three general categories of influence of culture which were identified as pertinent to attitudes toward physical education (gender, an idolizing of elite sports persons, and a compartmentalization of the body and mind) also were evident in both the societal and school contexts. Both these contexts transmit, as well as influence the cultural context (as represented by the double-headed arrows).
Hall (1988) stated that the conflict between gender and culture exists only in the realm of femininity because masculinity is culture" (p. 333). Pronger (1990) isolated gender and athletics and stated that, "Athletics is traditionally understood as a masculine pursuit.... The athletic world of power, speed, and pain is an expression of the masculine ideals of our culture" (p. 3). Certainly, gender distinction and gender expectations were evident throughout all the transcripts. Participants of both sexes had internalized cultural messages transmitted through family, mass media and peers. Not all of them had accepted the messages, but they were aware of their existence. Therefore, the girls who competed in a competitive manner in "male appropriate" sports often were referred to as "crazy" or described themselves as "queer" or "different." Boys who did not like sports or who had less skill or a lower fitness level than girls in the class were ridiculed and teased.

The impact of sports idols on the participants varied. Certainly, almost all participants could mention the "big names," in basketball and football. Interestingly, girls often were as conversant with the "names" in these sports as were the boys. Girls who participated in the "female appropriate" sports such as tennis or gymnastics mentioned admiring the top women competitors in these sports. Boys did not mention admiring female athletes.
The mind and body separation had been stressed in the physical education literature (Cheffers & Evaul, 1978; Rintala, 1991, Zeigler, 1979). Indeed, Cheffers and Evaul (1979) stated, "Despite efforts to the contrary, physical education has perpetuated the concept of dualism—the separation of mind and body" (vii). The data suggest that students have internalized this division. Almost all of the participants placed major emphasis on the importance of intellectual capacity and trivialized the physical aspects of the body.

Participants spoke about certain cultural norms as if they were fact. They stated or implied that these norms were learned through vehicles such as mass media, peers, and family--passed along from previous generations to their own.

Societal Context

Mass Media. In the early analysis of the data, the numerous instances of units coded "mass media", and the emphasis which participants, particularly the girls, placed on this source, suggested that the effect of mass media could modify the way participants viewed certain aspects of their daily lives. Both males and females constantly were bombarded with messages about what they should eat, how they should dress, and how they should look and feel. One participant shared how he viewed this barrage of information.

You just hear about it on the news. You watch the television and they say "watch this" or in magazines or
newspapers. You just get it from around you. You hear "do this" or "don't do that" or "this has too much fat" or whatever. (Jerry [o])

The following quotations illustrate the images to which adolescents constantly were exposed and which they, depending on the concept of self, accepted, modified, or rejected.

They [the models] are usually really thin and fit and that makes you want to think I want to stay thin and fit, so I can feel good about myself. (Tracy [-])

... some day I want to end up being like in a professional sport and if you look at them [sportsmen] and see that they are doing all that, then you want to be able to be in that kind of shape so you want to look like them. (Billy Jo [+])

A female participant who was not noticeably overweight, explained how the image of the "ideal figure" influenced her.

Like society says you have to be thin to be pretty. And I think I would have better self esteem [if I lost weight] cause I would feel better.... I don't really compare myself to the models cause I know that they are really, really skinny and work very hard at being very skinny, I just want to feel better. (Rita [o])

Messages that a perfect or ideal body exists, and that people should strive to achieve this exemplary shape were taken seriously by adolescents. The quotations above and the conversation from a group interview (below) suggested that girls, in particular, were aware of the stereotype but found the concept difficult to reject.

Sara (-): I think it is stupid because you want to be your own person and have your own personality, and not fit that stereotype.

Joslyn (-): And no one can [fit the stereotype].

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Lydia (-): You still want to try

The adolescents had internalized the fact that to fit in with their peers, it helped to be of a certain weight and shape, for instance, the next quotation demonstrates how one participant reacted to the pressure of looking similar to her peers, while the second illustrates the pressure overweight students can receive,

Most of my friends are skinner.... Exercise helps build your muscles and it helps you to lose weight, besides eating a healthy diet. And seeing like a lot of my friends were skinny and I was a little bit overweight and I was not physically fit. So I wanted to be a little more like my friends. (Alexis [o])

Yeah, new kids will come into the school and if they are overweight or, everyone just looks at them (makes a face)... I think if you are overweight you should try to do something about it. (Janet [o])

Although many of the conversations about media sources of influence revolved around magazines, television also played a major part in the creating of images, although most students seemed less aware of the influence of this medium. Nevertheless, some students indicated an awareness that television did affect them, as this conversation from a group interview suggests,

Sara (-): You don't see very many obese people [on television] unless they are making fun of them. Like those guys with the watch company. (laughter)

Joslyn (-): Oh, Timex.

Lydia (-): When they have the fat guy sit on the watch.

Sara: You don't really see obese people like in evening gowns or anything. Because that is just not what Americans symbolizes anything with. In other countries
I guess they are fat. It is just we usually don't associate them with it because of how we think.

One female participant suggested a connection between television and how boys viewed sport. She explained her reasoning,

I think, especially when the guys are teenagers or when they are 10 or 11, they see it on TV and they want to do it. There is so much publicity with sport. It is like, if you are a guy, you have to play a sport. (Janet [0]).

The male participants did not subscribe to, or read magazines as often as the girls. Nor did they mention the influence of these as frequently. Nevertheless, the magazine cited as being read most often was *Sports Illustrated*, in which articles concentrate mostly on male athletes or on females in the more traditional womens' sports, such as tennis (Reid & Soley, 1979). Several boys mentioned how they follow their sporting heros through magazines, and how this could affect their behavior.

I do a lot of looking up and reading and following... Like their [Laker's basketball team] fitness has [influenced me]. I tried to copy their exact fitness program. I don't have all the great material they do, but I kind of copy the exact things that they do. (Ervin [+]).

A female participant summarized the difference between the expectations for males and females--a difference which could be explained by the cultural context and the emphasis the media places on gender differences.

You have to be perfect. You have to be tall and skinny and beautiful. With the guys it is "how much can you bench?" "Well I can bench more that" and then they compete. They are in eighth grade and they all think
that they have to work out and then have to have all these muscles. It [the pressure] tends not be as big with guys as it is with girls. If there is a guy who is tall and overweight, he will play football. It isn't that easy for girls. (Janet [o])

Although the girls cited the media, in particular magazines, more frequently than the boys (88% to 30% for mention of magazines), closer analysis of the data suggests that the media was influencing both male and female participants, but differently. Two very distinct images were projected for the two sexes. Perhaps, as Janet (o) suggested, the female image was more difficult to attain, and therefore was spoken of more often.

The consistent television coverage of male sports, with very few comparable viewing times covering female sport (Kane, 1989) particularly, the less "feminine" sports—contact sports that did not emphasize grace and beauty, led some of the female participants to some interesting conclusions.

I like the basketball players too. I mean I would like to be able to admire a woman but there is like no women in the sports I like doing. A woman can't play in them. (Kate [o])

Kate was referring to basketball and football. Obviously the media coverage had convinced her that women did not compete at the level of competence which she admired. Lisa's (+) comments were similar. When I asked if she had a woman idol and she laughed and said, "No, cause girls play tennis and stuff, so I am not really into that."

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The connection between mass media and other factors (fitness, sport, and peers) can be identified in the examples given above. A combination of these factors, in turn, will influence the self concept of the participants.

**Family.** Media messages also reached and affected the families of the participants. Family members consistently were exposed to newspapers, magazines, radio, and television. As the model indicates, the influence of mass media on the family could, in turn, affect the participants. Further, the strong cultural context in which the families lived influenced the messages that parents and siblings reinforced. All the participants, regardless of their attitude toward physical education, acknowledged that they had been influenced by their family.

The importance of family to the way participants view themselves, their bodies, and each other is illustrated in the group interview discussion below.

Vanessa (+): Like my mother calls me tomboy a lot because I like too many sports.

Lisa (+): I get that too.

Vanessa: There is no tomgirls, just tomboys. You are considered a tomboy if you play sport.

Lisa: Yeah, that is what people, or my mother says to me. She calls me a tomboy. My brother sometimes acts loony when he can't get his way in sport, can't play a certain position, or something and I just call him a tomgirl because I don't know what else to call him.
Several girls expressed confusion around the "tomboy" issue because they felt that expectations had changed, as this conversation taken from a group interview illustrates,

Jean (o): My life style, my lifestyle has changed.... I was a tomboy when I was younger cause I had two brothers so I was raised like a little boy.... I kind of think I still am, because I am not that feminine.

Rita (o): I have always been a tomboy and always will be probably.

Jean (o): My mom is always telling me "don't do that, it is not lady-like". She never told me that when I was younger. She never really raised me as a little girl. I didn't wear dresses all the time. I climbed trees and dug in the dirt.

Carla (+): Remember I used to always want to climb a tree like you. I was like "How do you do that?".... My mom brought me up as, I think my mom always wanted a little girl, so did my dad.... I was always a little girl. I use to wear skirts to church and everything like that. I use to do my nails and everything, do my hair.

The conversations cited above indicate that certain expectations for adolescent females (held by mothers and other members of society) resulted in a new set of rules being set. Carla appeared less confused about what was expected of her because her mother had established and maintained the expectation of gender difference throughout. These examples illustrate the powerful influence family can have on the participants--much of it coming from the cultural context in which we firmly are embedded.

Fathers played a significant role in the participants' introduction and continued involvement in physical activity.
These quotations illustrate their powerful influence on the participants' activity pattern.

He [father] is wicked supportive with me and my sisters. He is always there at the games ... and he use to be our coach for everything when we were younger. (Judy [-])

[My parents] are wicked supportive. They are always there. My dad, he doesn't really play the sport but he will help us out, like he will watch us shoot around and tell us what we are doing wrong. And my mother just supports us. She doesn't help out or anything. She is more like the home helper. (Ervin [+])

(Ervin went on to add that he thought his mother had gone to college on a basketball scholarship!)

The influence of females in the sporting realm appeared negligible. The above quotation from Ervin was one example of the role mothers often took. A further example is given by a participant who, when answering the question about his parents' activity pattern, doesn't even mention his mother—only her relatives.

My father, he likes soccer. In Arabia, he played soccer and he was good. That's the big sport out there. And on my mother's side, well, let's see. Both of my uncles play basketball, then two friends play handball and basketball, and most of my friends play. (Peter [+])

These, and similar examples such as "all my mother does is clean" (Lisa [+]), and "my father is into tennis and stuff.... My mother likes to lay out in the sun" (Carla [+]) indicate that a pattern is being established. This pattern suggests that sport is of greater importance and relevance to males, particularly in adult culture. This presents a series of conflicting messages. Fitness and sporting
activity are important for females, but only to a certain degree, to a certain age, and for certain reasons. The mainstream media image tends to confirmed this impression. Women keep fit to maintain or achieve a good figure.

Brothers also were important in influencing the participants either positively or negatively in their attitude toward sport. When considering this finding, the readers should be aware that twenty-seven of the thirty-six participants had at least one brother, while only seventeen had one or more sisters. This difference may have influenced the results. Nevertheless, the quotation below was representative of many.

I get all my exercise with my family and with my brother and cousins and that is where I learned how to do it all.... My brother, we have a hoop and he is always challenging me to beat him. We walk to school, so he will race me to the telephone pole... He has got me into a lot of sports, so that is okay. Once my brother started to get into everything, he kind of pulled me along and then I just learned to love it [sports] because of him. (Terese [+])

In several cases, it appeared that the girls were not encouraged to join sporting activities to the same extent as their brothers. In the following conversation two girls struggle to explain the difference as they saw it.

Vanessa (+): If you took like five girls and five boys and divided up a whole week, the girls would be doing more homework and the boys would be playing more sport. That is the way it is. Cause I have a brother. I will be doing my homework or reading and he will be out playing football.... My step father encourages my brother to do sports.

Lisa (+): Yeah, cause my brother never does his homework. He is always going over to his friends
Vanessa: It is like a guy thing and a girl thing. Not sexist but mothers would rather be doing reading than going out to play basketball.... It is every boy. It is not just one or two boys. It is every boy.

Terese also confirmed the different emphasis on sport, depending on the sex of the family member. She reported,

My dad is into sports, but he never pressed me into anything, like playing. My brother and dad, they always did, but I was always, like rather play doll or something at the house. But lately they have encouraged me to do things, more like golf and skiing. So I do that now. He never pressed me as much as my brother, but I was the one for my brother to play with, so I had to. (Terese [+])

In contrast to the strong male influence on their activity level, many participants cited mothers as being more influential for their knowledge about fitness, particularly in terms of nutrition, an important concept to female participants because of its relationship to appearance. As the mothers were generally the cooks and shoppers for the family, their influence in this field is not surprising.

Many of the participants were unsure of how their parents viewed physical education. For instance, when Omar (o) was asked what his parents thought about the subject, he joked "It is not a very common dinner table conversation." Nevertheless, most of the participants had gained some impression.

My concern with analysis of this question (participants' views of parental opinion) was that the
students would project their image of physical education onto the reported opinion of parents. Therefore, when I read their relevant quotations, I felt it was important to consider that some of the opinions might be strongly influenced by the way the students thought and felt about the subject.

Often the students' statements began with a description of the way they believed their parents felt and then ended with a statement of their own beliefs. For instance, Ivy (-) stated, "I am sure they [parents] would rather [have] gym in the school and they would be upset if it wasn't," and then made the transition to her own beliefs, "but I don't think it is a major essential."

Regardless, the fact that physical education was not "a common dinner table conversation" is interesting in itself. While participants mentioned that parents asked about their progress in other subjects, progress in physical education or the contents of a physical education class were rarely mentioned. A participant explained the difference in his parent's response,

Billy Jo (+): Like I tell them "I had floor hockey today and I scored 10 goals. And we won" and all that. "Oh yeah, good, just go and watch TV or something."

Interviewer: What if you came home and said that you got 100 out of 100 on a test?

Billy Jo: My mom would probably like hang it on the fridge, bring me out to eat, give me all kinds of money.
Whereas fathers appeared most influential in terms of encouraging exercise and activity, mothers were mentioned more frequently in connection with grades, school subjects, (including physical education) and progress in school. The examples below support this connection.

I don't think she [mother] would mind if they took the gym out of the school system because she knows that I work out and she knows that I take dance and that helps too. So it is not like if I don't take gym class, she knows that I am not going to be fit. (Samantha [-])

My parents don't care. My mom thinks it is good that I am getting exercise. (Alexis [o])

The participants whose parents supported physical education as a subject, rather than a time-out from academic classes, appeared to be in the minority. The following examples were the only three comments found in the data set to indicate that parents totally supported physical education as a subject.

My mom thinks it [physical education] is extremely important and I shouldn't miss one. (Joslyn [-])

My parents think it [gym] is good.... They don't say anything about it. They got mad when I got a D on my report card from it, because they wanted me to take it. They got mad that I didn't take it because anyone could pass gym if you took it. (Jean [o])

My parents think it [gym] is real important because it is exercising me and to stay healthy. We don't talk about it all the time or anything. It is not something we bring up... I am sure if I failed it my mother would be really mad because she says "It is just as important as any other class." It is the same and if you get an F that brings your whole average down and everything like that. My mom really cares about school. (Carla [+])
Although Carla and Jean's mothers appeared to be supportive of physical education, the emphasis they placed on the physical education grade should be noted. The physical education grade was averaged with other subjects. Therefore a poor grade in this subject could reduce students' grade point average.

The majority of parents, however, appeared to be less supportive of physical education, as the next two quotations suggest.

They don't care. They want me to do good in gym, but if I got a D they would not care, but if I got a D in an educational class they would shoot me. (Judy [-])

They [parents] think that academics is a lot more important. (Sara -)

The last quotation summarized what appeared to be most parents' attitudes toward physical education—at least according their children. All of this is consistent with the findings of Sheehy (1993) who found similar findings among the parents of fifth grade children.

There appeared to be little difference between the attitude of parents of participants in each of the attitude categories. Students who held negative attitudes toward physical education made more negative remarks toward the subject when speaking on the topic of parent attitudes. On close examination of the text, however, it became evident, as illustrated earlier, that many of these comments were the participants' views, not necessarily their parents.
All parents were described by their children as supportive of sport and fitness activities, although fathers more so than mothers. Brothers were mentioned more often than sisters. In fact, sisters were only mentioned once in connection with activity and fitness (Tara [-]). Generally, participants' statements indicated that their parents often perceived physical education as useful, as long as it did not take up too much time and interfere with the important academic subjects.

Self Concept. Self concept was defined in the literature review as "the picture or perceptions that the individual holds of his or her strengths, weaknesses, abilities, values, and temperament" (Raffini, 1993, p. 142) while self esteem, a component of self concept, refers to the judgement of merit or value that an individual places on the various facets of the self (Kaplan, 1990).

The teachers in this study stated that one of their physical education goals was to raise the level of self esteem of their students. Although the participants' self esteem was not measured for this study, the interview data gave some indication concerning this facet of self concept.

Raffini (1993) offered an example which illustrates the way an individual's self esteem could be affected in sport (or physical education), dependent on the value they place on that particular activity.

A student might have a self concept that includes being an uncoordinated athlete, but it is the value he or she
places on athletics that determines how this self-view will effect the self-esteem. (Raffini, 1993, p. 142).

Generally, sport was valued in the adolescent culture and as a result, the presence of some athletic skill appeared to be important to the self esteem of most students. A few students confessed to being "bad at sports." They usually softened this confession with either a statement of another aspect of their life in which they could claim success, or boosted their ego by claiming some competence in this or another sporting area. The examples below illustrate these techniques.

I don't like sports. I am not good at sports. My brother is always good at sports. I am more into writing and reading and school work academically. (Maureen [-])

Interviewer: How would you rate your ability in floor hockey? How good are you?

Tara (-): I don't know, sort of great.

Interviewer: Compared to everybody else how would you be?

Tara: The other team think I am awful ... and like this boy on my side he said that I am really good. And I go "no I'm not" and he goes "yeah you are" and it is like "OK."

My observations, despite Tara's "sort of great" statement, indicate that Tara was low skilled in floor hockey.

These ego-boosting techniques often were employed by low skilled, negative attitude students. A similar strategy was used by higher skilled students who also held negative attitudes toward physical education. Those participants had decided that physical education was not important to them,
thereby it did not matter if they did not participate or receive a good grade (except for their overall grade point average).

You don't need that [gym] in the real world, where you need an education like English and math. It doesn't say on the application "did you take gym class?" (Jean [o])

I mean you have to pass it [gym] to graduate, but it is not a big deal unless you are going to become a gym teacher. (Tracy [-])

Physical education became important to these students only when it affected something about which they cared, as the following example illustrates,

I really don't care what I get in gym but I am just worried that if I get an F that for next fall I won't be able to play a sport. Cause that is the only reason I really try in gym. (Judy [-])

These examples contrast with statements made by students who had decided that sport (and physical education) were important in their lives.

It [sport] makes you more balanced... A kid who just sits at home and studies all the time isn't, of course he will be looked at in college but not as much as someone who does sports, does school, has a life kind of thing. (Ervin [+])

It [being good at sport] shows that kids can get more than straight A's in classes and stuff--that they can actually go out and play sport and they are good at things other than just studying a book. (Billy Jo [+])

The incident cited below illustrates the way the relationships between family, self concept (and the self esteem) of an individual, and the attitude of the individual are connected.
We had a basketball net and my brother... wanted to play basketball and I shot and missed it and he teased me, like so long. And I decided then and there that I hated basketball and I hated gym. (Maureen [-])

Being good at basketball was important to Maureen, and she had spent many hours playing the sport--alone. Her brother's taunts, however, may have so threatened her self esteem that she no longer could afford the risk of playing with others. She explained why.

It is funner than if I am doing it with someone else because if I am playing basketball with someone else I am so worried about being messed up, or messing up, but if I am playing against the rock ... there is not much worry or anything.

The next quotation in this section suggests a strong connection between self concept and self esteem within one participant's views of fitness and appearance. The second quotation again emphasizes the connection, this time linking physical education class, sport, and self esteem.

Like this year, I just looked at myself and I said that I have to start to get in better shape and exercise more because last year I didn't really do anything... I just looked at myself in the mirror one day and I said "I have to change. I have to do something"... I just want to be someone that I can like and everyone else can like, but someone more that I can like. (Kate [o])

I had a real low self esteem last year. Especially in gym. Real, real low ... because I was never good at sports ... I never thought I could do anything before... I took softball camp over the summer... and it kind of did turned me around ... because it showed that I had some ability to do some kind of sport.... I tried something and I could do it and I was good at it. (Alexis [o])

Previous physical education experiences. Previous physical education experiences are included in this section
because they also contributed to the self concept of the individual and to the expectations of what physical education should be. Almost a third of the participants (30%) stated that they did not enjoy their elementary school physical education experience. Regardless of ability, the major factor identified as influential at this stage was the elementary physical education teacher. The following quotes illustrate the way in which teachers affected participants' attitudes.

I remember my kindergarten teacher really made me like gym class a lot, but after I got to elementary school, I ended up hating it. (Lilliana [-])

The teachers [in elementary], they pushed you. I can't explain it ... They just wanted you to do better, It just got me so nervous... Probably because you have to choose between your friends when you have to pick people... I was the person who had to pick the people and that's the pressure. If you didn't pick a certain person, everyone was like. You felt this thing on your back.... I hated it. I was always the captain of the team. (Carla [+])

The last quotation from Carla (+) illustrated the negative effect that being designated captain had on one student. Research data have demonstrated the negative effect this practice has on the students who are picked last (Portman, 1992; Williamson, 1993). This quotation illustrates the experience from a different angle and suggests that this practice is not always a positive experience even for the captain. A further example of the destructiveness of this technique was given by Jean, who was one of the students not picked.
I can remember the soccer tournament in fourth grade. We would all close our eyes and vote for who would be on the soccer team. I never got votes and I was one of the best soccer players. I never got voted for. I was hurt. (Jean [o])

The personalities, choice of teaching strategies, and behaviors of the elementary physical education teachers were important and often were identified as significant influences on how the participants felt about themselves and their motor abilities. The negative and positive teacher behaviors were remembered and still affected some students' feelings and actions at the junior high or high school level.

The linking of boxes in the model illustrates the connection between previous physical education experiences and peers and skill level. The three factors are connected. The interaction of peers and their earlier physical education experiences is evident in the quotations above.

Perceptions of fitness. As mentioned in the discussion of influences from the mass media, participants' views of fitness were closely associated with, and affected by mass media. All but two of the participants stated that being fit was important to them, and one of those two stated she sometimes felt guilty because she was unfit.

Reasons given for the importance of fitness in the lives of the participants varied. Again the connection between appearance and fitness frequently was cited by the girls. Although some females also mentioned the role of
fitness in ability to participate in sporting activities more effectively, the boys were more likely to mention fitness than appearance. Success in sport for males was reported as resulting in increased popularity and greater prestige among their peers. The difference is highlighted by the following quotations.

I think it [fitness] is important because ... for the activities that I want to do, you can't be out of shape.... Also appearance ... is like a big part. Like teenagers today, we are so into appearance that we get like nervous about being overweight and all. And to be fit, I still don't want to become overweight or anything. (Carla [+])

It [fitness] is probably the second most important thing in my life with school being the first. Without it you wouldn't really have good health. That is really where I met all my friends through sports and stuff. (Ervin [+])

Many of the participants also alluded to the link between their fitness level and their self esteem, supporting the central positioning of self concept in the model. The following quotations illustrate this link: "You feel better about yourself knowing that you like run every day and work out" (Tracy [-]) and "I feel better when I know that I exercise... When I don't do it, I don't feel as good as when I do" (Samantha [-]).

Sporting experience and success and skill level. This section combines several factors: the participants' skill level in various sports, exposure to sport, and successes (or lack of success) in the athletic domain. In this document, I have labeled certain students as "low skilled."
I am uncomfortable with this term, despite its consistent use in the literature. I wonder how many of the participants in my study would be better described as "less practiced." Whether the participants' "low skill" level was lack of aptitude or lack of effective practice was difficult to judge. A comment from a participant who reported, "my athletic ability is getting better" supports the "less practiced" idea. I asked if her athletic ability had been there all the time and she replied, "It was and it wasn't. I probably had it and didn't know I had it" (Alexis [o]).

Readers should be aware that the skill rating was done on the basis of the units of activity that I observed. The ratings might have been different if other units had been observed.

Coaches appeared to be more influential, both as a source of knowledge and as role models, with male than female participants. Boys mentioned coaches and families as the two most influential factors in earlier skill development, while the girls tended to mention only family. The following comment demonstrates the extent to which one student was influenced by his coach,

I was asked to be on a select team in basketball and the coach was just the greatest guy I have ever met in my life.... He was the one that told me how to be, how to play, how to be the person. He said, "I am not just your coach for basketball. I am your coach for other things" and he coached me on life.... He was just the greatest guy I have ever met in my life. The guy is incredible. (Ervin [+])

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The interview data indicated that skill level and sporting success appeared to have a direct effect on self esteem. For instance, self esteem appeared to rise in direct proportion to increased skill level and sporting success. The second quotation illustrates the influence of peers in this process.

I really think it [changed attitude toward fitness and himself] was basketball. I played things that had to be taken like minor league and t-ball, but I hadn't really ever been good at anything until I was on a school team and they started to really train me, just teach me how to play. And then I got healthier and faster.... It really did a lot for me. (Omar [o])

The less popular people, they kind of put me on a pedestal. I like it. It is just something I like.... Like when someone less popular comes into the school and they kind of look at me and put me on a pedestal. I love it. (Ervin [+])

Ervin attributed most of his popularity to his sporting prowess.

Peers. As the model indicates, the influence of peers is connected with the following factors: self concept, perceptions of fitness, sporting exposure and skill level. A major connection among these five factors revolves around the "desirable" image—an image that young adolescents aspire to—learned from their families, peers, and the media.

This image differed for male and female participants, and examples supporting the connection between this ideal and the influence of peers already have been included in the mass media section. Further examples also will be included
in the section on gender differences. Although Omar (o) stated that "guys no longer think that girls have cooties", a division was still evident in the way the two sexes treated each other, and their expectations clearly were dependent on the sex of the participant.

When Lydia (-) was asked where she had learned about the importance of being physically fit she stated, "You look around and you look at everyone else and you try to do what you can do to fit in." This statement suggests the strong desire of adolescents to fit in with their peers. This aspiration was evident throughout the interview data. The following statement illustrates the pressure one participant, and other sport-oriented friends, placed on friends less inclined toward athletics.

We usually somehow drag them into a game or something ... but the next day they are back to the same thing, like "I don't want to" and we have to drag them back again.... And it takes all our friends to drag them out there. (Mike [+]).

Other male participants were not as forgiving as Mike. They simply did not associate with other boys who were not interested and proficient in sport. Ervin (+) explained how he reacted to people with less athletic ability who therefore were not in his circle of friends,

I think I would treat them differently. It is mean to say, but yeah.... I wouldn't acknowledge them as much, give them as much respect as I would one of my friends, someone as equally popular as me. I never thought of it but I do.... Now I think about it, in the hall, I shy away from an unpopular person, like a disease or something, wow!
Sporting prowess and its connection with popularity was identified as a very important factor for males, while it emerged as far less important for females. This distinction will be discussed in section covering the differences between sexes.

Both the male and female participants were aware of the skill discrepancy between the two sexes and many believed that this was innate. The examples cited illustrate this belief.

All the sports I'm in are guys.... I think it is because they [boys] have more energy than girls do. And girls kind of admit to that. Because the guys have all the energy up here [upper body] and girls have it on their hips. And what can you do with your hips? Not too much. (Vanessa [+])

This may sound sexist or something but I really think boys have a lot more ability than girls. Well in our gym class, the boys have more ability than girls. Maybe they don't but the girls don't do anything. (Roxanne [+])

Billy Jo (+) talked about how certain boys were ridiculed in physical education class because "some of the girls are better" than the individual being teased. I asked him if boys are mostly better than girls in sporting activities. He replied, "At most sports yeah, but then there are others like swimming.... There is swimming and dancing that girls are better at." Our boys were the better players "like 99% of the time." Pressure existed for boys to be better than the girls, while there was little social advantage for the girls to beat the boys.
Perhaps one of the most telling comments came from Ervin (+) who, when he was asked if he associated with anyone who was not athletic, stated, "No, cause that is how I met them [friends] through sport." He did not consider his girl friend in this statement for she was not athletic and "hated gym more than life." There was obviously one standard for male friends and one for female friends.

In this catch twenty-two situation, the belief in male superiority in sport resulted in boys feeling that the girls were not worthy opponents in most sporting situations, and therefore often did not treat them as such. The occasional female athlete was accepted but treated as an exception to the rule. The girls often believed that much of their lack of competence in sport was hereditary and therefore did not try as hard, nor practice as frequently. These beliefs helped create a self-fulfilling prophecy. Naturally these convictions also affected student performance in the physical education class.

When the students arrive in the gymnasium for their first physical education lesson, the expectations they have for that class are a product of all the factors discussed in this section: family, mass media, previous physical education and sporting experiences, their fitness level, and their peers. All of these factors had combined to teach the participants how they should perceive themselves. Some students already have decided that they are "not good at
"sports" and probably never will be. Others are confident and excited about showing their new classmates their expertise. They now interact with a new set of factors, those within the school context.

**School Context**

The factors listed under school context are those which were found to affect students' attitudes from within the school and physical education environment. The relationships among these factors are illustrated in the model either by overlapping boxes or by the double headed arrows which link the various factors. Analysis of the data indicated that four factors were most influential in affecting students' attitudes. These were (a) the personality and behaviors of the physical education teachers, (b) the curriculum, (c) the school (the place of physical education within the school), and (d) the environment in the gymnasium, which includes that influence of peers. Each factor will be considered separately while the connections between each will be highlighted.

**Teachers.** Earlier research (Aicinena, 1991; Figley, 1985, Luke & Sinclair, 1991; Portman, 1992) suggested that teachers had an important influence on how the students viewed physical education. The coded transcripts in this study supported these findings. Joslyn (-) summarized the strong teacher influence by stating "They [teachers] have a

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lot, a lot of influence, because they have the power to reprimand you and punish you."

Not only did they have the power to reprimand and punish, they had the power to design and implement curriculum, and the power to instruct and control the pace and tone of the class. All, but one of the participants ranked teacher personality and teacher behaviors as one of the three major reasons they felt as they did about physical education. Teachers appeared to be pivotal players in attitude formation toward physical education. The other two major factors mentioned were the curriculum, also controlled by the teachers, and the influence of their peers.

Only one student stated that the teachers did not have a major influence on his enjoyment of class. He believed that their influence rated, "say 20% ... It doesn't matter to me—as long as we get to play" (Mark, [+]).

The rest of the students disagreed. The examples given illustrate the importance other students place on the personality and behavior of their teacher.

The teacher plays a big part. If I don't like the teacher, I am not going to enjoy the class because I am not going to take the class ... If I don't click with the teacher, I just hate them.... If it is not a good teacher, it is not a good class. (Jean [o])

When asked to put a percentage on how much of her enjoyment centered around the teacher, the activities, and her peers, Tracy (-) stated that she would "give the gym teacher 75%". Samantha (-) ranked the influence of the
teacher even higher, and said "I would probably give it [the teacher] an 80% because I think it is the whole way that the teacher presents the game."

Negative elementary physical education experiences which were the result of teacher behaviors continued to be influential. When asked what chance her present teachers had to change her attitude from a negative to a positive one, Maureen (-) estimated that they had only a 40% chance, while Lilliana (-) reported a slightly higher 50%.

Most of the students at the junior high level liked their teachers, and in the case of Lilliana and Maureen, their liking for Gail turned an active hatred for the subject to the more muted form of dislike. Maureen stated "I like Ms G. better than I liked my gym teacher in elementary. So when I came here I felt better about gym."

Terese (+) had a similar experience. She did not enjoy elementary physical education, but rated her junior high school experience as very positive. She attributed this change to both her peers and the teachers.

It is just making fun of you in a joking way, and like it is not really serious and like you are usually laughing with them [the teachers]. They don't sit down and lecture you for something. If you do something that is dumb, they will be like "come on, get with it" but they are not going to yell at you because of an inability. And that is what they use to do.

Statements such as these indicate that teachers have the potential to change students' negative attitudes into more
positive ones—although success would vary for each individual and the process might be slow.

The influence of the teacher differed from individual to individual, from one skill level to another, and from one attitude category to the next. Further, it differed in degree of intensity. Nevertheless, there were certain aspects upon which most participants agreed. These were: physical education teachers should be caring and understanding; they should have at least reasonable sporting ability and fitness level; teachers should participate in class, at least some of the time; and teachers should treat students more like adults. Further, the female participants often were critical of receiving different treatment from teachers because of their sex. The majority of students mentioned being singled out as an undesirable teacher behavior.

In addition, at the high school level the status of the physical education teachers appeared to be lower than the status of most other teachers. Finally, the quality of instruction was mentioned only infrequently. The absence of comments concerning this point raises interesting questions, among them the possibility their students do not regard good teaching as a significant factor because they do not regard learning as a significant objective for physical education. Each aspect of teacher behavior identified as important by students will be discussed separately.
Participants believed that one important attribute which good physical education teachers should possess was a caring nature. The quotations illustrate this need: "When I was at elementary school I don't think the teacher cared," (Lilliana [-]) and "I didn't get the feeling that she cared, so I hated gym" (Maureen [-]). This type of "caring statement" was repeated consistently when students were asked to describe their ideal physical education teacher.

The following quotations suggest that, for at least some students, physical education teachers somehow are different from other teachers.

They are probably closer to you than academic teachers are cause they are more lenient. You know, they are not sort of like hard. (Carla [+])

He makes it fun. He is a friend to you. You get along with him. I get along with him better [than other teachers]. I understand him better. He understands me better. (Peter [+])

Finally, Monica (-) stated that her ideal physical education teacher would "be a big kid, like play with us."

When asked if the attributes of caring and understanding also were important for other teachers, most students agreed. Several participants, however, believed that to have a "mean gym teacher" was worse than having another teacher who was mean, because a gym teacher is more involved in what you are doing, where other teachers will just stand up in front of the class and they are not really involved in what we are doing so they don't have that much effect on you. (Jean [o])
Participation by teachers generally was appreciated by all participants. (The only exception was if teachers were perceived as playing unfairly.) Perhaps this factor is connected with the participants' belief that other teachers stand and write on boards, but physical education teachers are different. The following statements indicate some of the reasons why students liked this participation.

Actually I like it [teacher participation]. You get to look at them in a different way. They are on your team or a different team, so it is a little different than having them stand by the side and watching. (Mike [+])

Sometimes they [teachers] make it funner because they push you and stuff and just like fooling around so they make it fun. (Lisa [+])

Students also appreciated teachers joining in the warm-up activities.

Participants were divided on whether teachers should be able to master every activity they taught, as the following statements indicate.

I think they [teachers] should be able to play all the stuff.... Because sometimes the teacher we have now, they won't be able to do something and they don't show us how to do it. We just have to go and find out. (Marcus [+])

It would be nice if they could do the things that they want you to do too ... So they can make the basketball shot or they can climb the gym rope, and do all the somersaults and all the gymnastics movements that they want you to do. (Omar [o])

They [the teachers] should know something about it [the sport] but they don't have to know everything about it. (Mark (+)

Several participants mentioned the importance of the physical education teacher being able to model a healthy
lifestyle, as the statements suggest: "I wouldn't like them [teachers] to be like lazy and not really active." (Lisa [+]) and "[I would like] someone who doesn't just sit on their butt" (Alexis [o]). The ideal physical education teacher, according to Rita (o) "would be fit so that they would set an example."

The adolescents in this study were becoming increasingly aware that they were no longer children. In part, their desire to select activities of their own choice reflected their need to take control over some aspects of their lives. At the junior high school level several students mentioned teacher behaviors which they believed were more appropriate at the elementary level. Although these students liked the teacher, they did not appreciate being treated in what they considered a childish manner.

Well, she teaches the elementary classes too, and she kind of carries it over to our classes--like when I clap my hands once, you can move. (Omar [o])

Games, which were enjoyed at the elementary school level suddenly had become "corny." "Made-up" games were enjoyed, provided that there was a purpose and did not appear too childish.

At the high school level, students were offered more choice in terms of activities and teachers. Perhaps this reduced the number of complaints of treatment as children, although occasionally critical comments on that topic were made.
I think the teachers think of us as little kids because I went to make up a class and it was a junior senior class and it was fun because they let them do anything they want ... they didn't like say "get over there and do something." The teacher just let them play and we all had fun. (Sara [-])

Like they should treat us more like adults. (Lydia [-])

Although the participants might acknowledge some differences and expectations among the sexes, they expected teachers to be scrupulously fair in their treatment of males and females. Some students believed that teachers held differing expectations for the two sexes, dependent on the activity being played. For instance, Jerry (o) stated,

I think in gymnastics, they expect the girls to do more ... but in like baseball and hockey and basketball they expect the boys to do more. And in basketball they separate us and you can tell by talking that the boys are playing games and being more aggressive and the girls were just doing drills.

Jerry then indicated that the teachers might have something to do with the differences he observed.

The boys had Coach and the girls had Ms G. And that probably had something to do with it. If they reversed the coaches it might be different. Coach might want you to be more aggressive.... Ms G is more into drills and play, "give it your all, but don't be real aggressive."

Several girls at the junior high school level believed that class was designed to accommodate males more than females.

Basically everything we have played is based around the guys. When we did gymnastics everything was for the guys. He [Coach] puts a lot of pressure on the girls to be more like the guys. He will give the guys as examples ... I guess gym favors boys, I guess you could say that it is a bit sexist. (Alexis [o])
A conversation in a group interview indicates that two participants believed that Coach sometimes treated male students differently. After commenting on this difference in treatment, the students offer an explanation for Coach's actions.

Vanessa: Sometimes Coach gives the guys more of a break than the girls.... The girls like try hard, but the girls just don't do it as easy and Coach is like "these girls aren't doing, start all over again".... You have to understand that he coached the boys' basketball team. It is like hard to teach like a co-ed type thing.

Lisa: They [the teachers] expect more from the boys cause they are more athletic and stuff... I got the puck from Jack and he [Coach] says, "why are you letting the girls go after you?" or "don't let the girl take the puck from you."

This subject was mentioned less often at the high school level although comments such as the following were made,

It is totally sexist. She picks like eight guys first and then. Like she picks the guys first and then she picks the girls. (Monica [-])

At the junior high the separation of sexes was far more evident than at the high school level. Rarely was this separation noted, although one male participant, Omar (o) did comment, "I have always wondered why they separate [girls from boys], I don't know, I just thought it should be different. Just line up randomly."

Generally it was the girls who noted perceived differences in treatment. The boys, as was evident in the earlier section, often were convinced that they had a
greater potential in athletic ability and may not have noticed or been affected by instances of sex discrimination.

Physical education teachers appeared to be thought of in more negative terms as a collective group than most teachers at the high school level. As an interviewer I was unable to extract from the students why they felt this way. For instance, Sara (-) stated "I respect the teachers, but not the gym teachers. There is something about them." Monica (-) also stated "I just don't like gym teachers." When asked to elaborate on her statement, she could not. Judy (-) spoke instead and linked the lack of respect for physical education teachers to the lack of status of the subject.

They [physical education teachers] think that we would take gym as serious as other subjects. We don't. Nobody really cares. It is like, "it is just gym." We don't care if we get a D or something in gym.

Statements such as these support the idea that learning in physical education often was not considered a priority, or even a consideration. Within the cultural context, sport is viewed as entertainment, with the old adage "all brawn and no brain" still in evidence. Within the same cultural context, the mind and body are compartmentalized, with the mind viewed as of far greater importance.

When participants were asked the difference between sport and physical education class, they mentioned only two differences. First, they stated that sport was more competitive. Second, they mentioned that they did not have
to listen to as many instructions because the players were more experienced and were more familiar with the techniques, rules, and strategies. Because of this close association between sport and physical education, students made other connections. These connections included: if I am playing a sport I don't need to do physical education; if I am not fat I don't need physical education; physical education should be a option because it is not of great value (I always can play sport in my own time).

One participant mentioned certain qualities that she felt were important for a physical education teacher. She did not mention ability to teach or a sound knowledge of the subject. I followed up her remarks with this question,

Interviewer: Does that mean that anyone off the street who enjoys kids and has fun could come in and teach physical education?

Jean (o): Yeah, as long as they can explain it pretty much.

Interviewer: Would you say that about another teacher in English or math?.

Jean: No, because it is like totally different... They [the English or Math teacher] have to teach you. English, they have to know the subject cause if they don't know the subject they won't be able to teach you... [in gym], they [PE teachers] have to know how to play, but they don't have to be good at it.

I asked Rita (o) a similar question, when she suggested that a physical education teacher needed to be fit and good with kids. "Can anyone teach gym if they are fit and good with kids?" She replied, "Yeah, I suppose so. They would have to have a teaching thing, but yeah."

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Only Ervin (+) mentioned the rise in status of a physical education teacher if they also coached. He was so emphatic about this belief that his response is worthy of note. He stated,

Mr R [Richard] coaches a little better because this is kind of like his second job to coach. Ms E [Elena] and Ms M don't really. They are just gym teachers... I think Ms E just went to the college and majored in fitness or something. She never coached or played. So that makes her a less, not to be mean, but makes her a less of a teacher. I mean Ms M went to college on a scholarship so she is a better teacher.

As mentioned, very few students elaborated on the importance of physical education teachers' ability to teach well. Two different schools of thought were apparent—participants who believed that they did not need instruction, and others (the minority) who wanted more instruction. The few statements in the data which supported the need for physical education teachers to teach are include below.

I like most of the sports and if I don't understand what to do, they [the teachers] explain it and I know what to do.... There should be more drills too. You get better at, if you are doing floor hockey, you can handle it better. (Karen [+])

In gym the teacher are just there to watch. They don't really teach us anything. In 7th grade you learn how to do everything and in 8th grade it is like a review. (Janet [o])

Teaching, TEACHING, how to do them, not just letting you use them [the equipment].... I don't learn anything here in softball ... if they taught me everything, I wouldn't mind [softball]. (Ivy [-])

Others, particularly male participants, appeared less receptive to correction, as suggested below.
I don't really listen to him that much because I play street hockey and I already know what to do, but then he tells me something different and I am like "yeah" but I already know what to do... The kids that are really good at it like me... don't really listen to him, but all the others do. (Billy Jo [+])

No one actually takes any notice [when Coach stopped play to give feedback]. It aggravates a lot of people. Like you are in the middle of something and you are just about to do something and all of a sudden Coach walks up there and stops the game, and it wastes our time because they don't stop the clock. Usually what happens is that people just ignore most of it. (Mike [+])

Interrupting the game was disliked by most of the students and was a behavior that all students, regardless of attitude, regarded with disapproval.

Data suggested that physical education generally was considered a lower form of sport and play--one that lacked the prestige and the advantages that playing a sport offered. All of the students saw physical education class as time out, a class that had no homework, allowed them to run around, and permitted more interaction among students than most other classes. Statements similar to the one below were common,

Cause you have four or five classes every day. So the periods that you don't have class, you can kind of relax before you have to go back and do more homework and learn some more facts. It is just kind of not taking things too seriously. (Omar [o])

Regardless of the school, teacher, skill level, or attitude, the majority of the participants mentioned that one aspect of a teacher's behavior should be corrected--the singling out of one particular student or small group of
students. This behavior was classified as embarrassing, whether in class, in the corridor, or in the cafeteria. The low skilled students expressed the strongest feelings about this type of teacher behavior.

She keeps coaching us like.... It kills our morale... It brings more attention to us ... because they [other girls] only exist, it is us that she is always saying our names. (Lydia [-])

Rita (o) liked her present teacher's behavior because she was not singled out. She explained how her teacher, Richard, made her feel at ease.

He doesn't push you too hard and he kind of lets you be what you are instead of like force all these different strategies on you. Like if you can't do something he will accept it rather than push you harder to do it.

She stated that she would try harder with the teacher "that doesn't push because when I get pushed I tend to be more distant and don't work as hard."

Although being singled out was reported as being embarrassing, brief positive feedback and even a simple correction in the game situation was usually accepted and even savored. During the game situation, Coach continually directed play and offered feedback to his students. Michelle confided that this attention "makes me feel good."

This type of statement might appear to contradict the earlier preference of students for the game not to be interrupted. The feedback of which Michelle spoke, however, was given as play continued.
In summary, regardless of the participants' current attitude, sex, or skill level, the personality and behavior of the physical education teachers, both past and present, significantly contributed to the way the participating students felt about physical education.

Curriculum. The two participating schools had adopted similar student goals for their programs. Promotion of the enjoyment of physical activity was the major aim of both curricula. The junior high school concentrated more on acquisition of skills, while the high school emphasized the recreational aspects of sport and activities. Evaluation of student performance in physical education was similar at both schools. Grades were based on student participation and on bringing a change of clothes or physical education uniform. Rarely was skill taken into account for evaluation, and then only at the junior high school level. All teachers valued student effort and positive attitude, and students were awarded grades accordingly.

The major difference between the two curricula was not in courses taught but in the organization of the programs. At the Junior High, the same activity was offered to all students. For example, for a four week block all eighth grade students were required to take gymnastics. Then all students would participate in a four week unit of floor hockey. The classes were team-taught by Gail and Coach.
Occasionally, two activities were offered, and the students were given the choice of one of the two.

In contrast, at the High School students were offered a choice of activities. Usually they had a choice of three activities and three different teachers from which to select. In the case of HS-8/9D, this was reduced to only two because of the unavailability of a third teacher. Every five to six weeks, students would sign up for a new activity.

The choice of activity had considerable influence over the way students viewed physical education at that particular time, as the following quotations from interview data suggest. The activity appeared to have more influence on the participants in the equivocal and negative attitude categories.

It depends on the sport, like if we like the sport then that helps us to like [gym]. That is number one. (Alexis [o])

A lot depends on what activity you are doing. Like I can't stand floor hockey.... If it was my choice, I wouldn't. I would take a study. (Janet [o])

Perhaps because they had some choice, the participants in the high school were not as vocal about the activity as were the junior high participants, although the effect of the activity was still mentioned.

Repetition of activity was a factor about which students often spoke in connection with curriculum design. Lack of coordination between elementary, junior high or
middle schools and high schools contributed to the repetition, not only of activities but drills and practices.

I think it is boring, because we have been doing the same things since 6th grade ... same thing every day or every other day. (Joslyn [-])

I would just have more activities because sometimes they repeat the activities a lot and they sort of get old. I have only been here for two years but I feel like they repeat, like they repeat soccer a lot, volleyball a lot.... I play volleyball and it is fun and so is soccer, but they have to get like different ideas. (Carmel [+])

The students were divided as to what activities they would like to see in their ideal physical education program. The only aspect on which all participants agreed was that students should have a choice of activities.

I would give the students the freedom to choose one out of two options every class... I would also let students choose different types of games and sports to play. Kids might start liking gym better because they have more say in what to do for gym class. (Maureen [-])

When asked to describe their ideal curriculum, only one participant suggested less traditional activities (such as karate). Comments such as the one cited below were reasonably common, particularly from the positive attitude students.

I don't think it [if I designed my own program] would be much different from this. I like it. It would be maybe different activities once in a while, but I don't think it would be different to this. (Jenny [+])

The other students, although some were critical of the current program, could not suggest new, interesting activity units. Several reasons for this lack of innovative ideas were offered by the participants. For instance, Terese (+)
was realistic about their exposure to different activities. "There should be more choices, but we don't know what to choose, so they would have to give us the choices to choose." The following statement suggests that the image in students' minds of what physical education is, prevents them being creative. "We all have a stereotype of what gym is suppose to be. Like what is supposed to be played, you know, and when, and all" (Carla [+]).

Data analysis suggested that one of the major disagreements among students concerning curriculum centered around the debate of "real sports" versus games. Real sports were comprised of the traditional sports such as basketball, soccer, and softball, while the students' definitions of games included any sport that could not be regularly viewed on television (pickleball, team handball, ultimate frisbee) and other lead-up games such as bombardment. All the students recognized the difference between the two, as the comments below indicate.

I like playing soccer football, but that's not a real sport. It is just like a game we play. (Terese [+])

I might like it [gym] better if we had a real sport instead of frisbee. (Judy [o])

Differences in opinion about the real sports versus games issue were related to skill level and attitude of the student and will be discussed in section three.

The evaluation process in physical education was liked by almost all the participants. The two negative cases were
mentioned by two students who were presently failing a unit in physical education. Because changing into athletic clothes and participating in class were considered easy to do by many students (particularly the male participants), the lack of other grading procedures reduced the pressure that was felt in other subjects. The quotation cited supports this lack of tension over grades.

I get an A, just show up and play and wear the right clothes. And to tell the truth, I have never thought of not getting an A in this class.... I don't even think of being rated in gym, that is the furtherest from my mind. I just think "play" and I get a break and do something. I don't see it really as a real academic class, I know I get graded but I don't see it that way. (Jimmy [+])

Statements similar to the one above were most commonly made by participants who held positive attitudes toward physical education. Roxanne's (+) statement spoke of the evaluation process and underlined some of the lack of status physical education had in the eyes of some students.

How can you get an F in gym, that is what I can't understand.... You just have to have fun. It is not like you have to be smart or anything.... And then my brother, he is really athletic and he got an F in gym.... It is so weird when people who are athletic and they get an F in gym. It doesn't really matter because you know they can do it.

Many of the participants, particularly at the high school level, did not see the benefit of the warm-up sessions. Two major reasons were identified. First, they believed that the warm up sessions could be more beneficial.

You need to stretch and really stretch. You have to stretch each muscle like 30 seconds so you really stretch the muscle. (Jimmy [+])
It doesn't stretch you out... and it is not a good stretch. It doesn't do anything for you really. (Samantha [-])

The second reason students gave to substantiate that warm-ups were unnecessary was that they believed that they were not really physically extended in physical education class. They could see the reason for warming up before a sporting practice, but because they were not exerted did not feel that they needed to warm up for physical education class.

Over half of the students mentioned that they believed physical education should not be a compulsory subject. Interestingly, many of those who enjoyed physical education the most were in favor of making the subject an option. Two participants explain their reasoning.

I think people would benefit a lot [if gym was an option] because some people hate gym and don't want to go and they don't learn anything and it is not as much fun [for those who do]. (Terese [+])

Gym should be like a class that you should sign up for.... You have got kids who are made to take it and they just hate it and they just ruin it. (Ervin [+])

In other words, by eliminating students who either did not want to be in class or whose skill level was low, the class would become more like sport, and therefore more enjoyable for the higher skilled and more enthusiastic students.

In summary, the curriculum and the way it was implemented was influential in influencing participants' attitudes. Most students agreed that they should be given more choice of activities, and frequently mentioned
repetition of drills and activities as a deterrent to their enjoyment of class. Although they were quick to suggest that new activities should be included, most of the participants could not recommend specific activities they would like to see added to the curriculum. In addition, students were divided as to whether physical education should consist mostly of "real" sports or include games. Almost all of the participants approved of the evaluation system, which placed little pressure on them to improve. Finally, many participants, even those who liked physical education, suggested that physical education should be an option.

Environment in the gymnasium. Over the semester, eight different classes were observed and I found that each class had its own character and "feel." The same teacher could teach an identical lesson to two classes with very different outcomes. Therefore, although the teacher was a very important element in developing class atmosphere, other factors had to be involved. The following factors appeared to be influential in contributing to the environment of the physical education class: (a) behavior of peers, including the interaction between students and the level of competitiveness of students in the classes, (b) the activity-oriented curriculum, which allowed more freedom for interaction among students, and (c) the locker room environment and changing into athletic clothes. Factors
such as academic streaming of students and class size often resulted in one class reacting very differently from another. These two aspects will be covered in the section devoted to the school. Peers are included within the class environment because data analysis suggested that classmates contributed significantly to the creation of class atmosphere.

Examples of negative interactions among students were found easily in the data set, although they were reported more frequently at the junior high level. In the incidents cited below the reader can identify both the receiver of the negative behavior and the person(s) initiating the action.

It [being teased] makes me feel depressed and stuff... I just ignored it.... If you ignore them they might stop. (Michelle [-])

I don't make fun of anyone when they mess up. I just try to help them, but sometimes when kids mess up in gym class and somebody else makes fun of them because they didn't do it right or something. (Lisa [+])

Like there is some kids in our class, they make names for them and stuff because they like can't do stuff... There is one of them and he is like wicked slow and we have to do the mile at the beginning of the year so everyone calls him like "Hot Rod" ... and now even Coach calls him that. (Billy Jo [+])

Not all interactions among peers were negative, as the statement by Lisa indicates. Carla (+), for instance, mentioned all positive aspects as she struggled to describe her class, "It is more humorous than like, I am trying to say congeniality, maybe. We all get along." When asked
what helped contribute to making this class so compatible, she suggested,

A number of things. It is because we have been together, we have all grown up together. Maybe it is the teacher, Maybe it is just the game. Maybe it is the way we feel comfortable around each other, not like we have to impress each other or nervous and embarrassed.

Peer influence also occurred outside of class. Incidents of this type were mentioned infrequently. Nevertheless, the following extract taken from a group interview illustrates how an incident outside the gymnasium could affect students' feelings and behavior in physical education class.

Well, we have had kind of an incident— it is not in gym, but in the halls saying rude awful things like what you look like... You want to kick their heads off when you see them in gym. And you don't want to run because you know they are looking at you, or something. (Sara [-])

Regardless, of whether the interaction between students was positive or negative, the opinions of peers were becoming of increasing importance. The role teachers play in forming and maintaining student attitudes remained crucial. The students' interview data, however, suggested that as students matured, the opinion of their peers was becoming of greater consequence.

The curriculum at both schools consisted of mostly sport-oriented activities. Therefore, the spirit of competition was introduced into classes although this was not stressed by the participating teachers. The students
varied in the way they responded to competition as the following quotations show,

It doesn't matter. I don't even know if we ever won. I don't even know if we ever score. I mean sometimes I don't even know who is on my team! (Judy [-])

To me it [winning] is not that important, but to some people in the class it is more important than having fun ... I wish everyone would just accept that it is just a game in gym you are not out there to win. (Rita [0])

In gym, it [fun] is important and even in normal sports it is important, but I think it should come secondary to winning.... I hate losing more than anything. Gym, I love to kill in gym. I love to fight for it. (Ervin [+])

Regardless of individual attitudes toward winning, there were competitive students in the class (as the last quotation illustrated) and the sports played were designed to have both winners and losers. These two situations meant that a competitive atmosphere was something with which all students had to contend. The statements included suggest that there could be some conflict between the two extreme groups, those who were very competitive and those who were not. The lack of seriousness by less competitive students might annoy those who held highly competitive views, while the less competitive might be frustrated or intimidated by the aggressive nature of the game.

A further factor which contributed to the comfort level of the students in the gymnasium was the activity-oriented curriculum. This association is the reason curriculum and environment are linked on the model. The public nature of
activity often placed students and their capabilities on display. Distinct differences in reactions to this "display" element were identified for various skill groups and these differences will be discussed in the skill section.

The more embarrassing moments came when some students were not involved in the game and thus were free to observe (and critique) their peers. The following conversation from a group interview illustrates this point.

Janet (o): Maybe when you are playing softball or you are playing teams and there is a team sitting down.

Alexis (o): or when you are playing floor hockey and there are people watching you. I don't like that.

Janet: Maybe some of the kids who can't do it as much feel embarrassed when they mess up. I know when I mess up, it is pretty embarrassing ... everyone laughs.

Low skilled students mentioned negative interactions far more frequently than other students. Regardless of their skill level, the fear of their peers judging them and finding them wanting was very real among all students.

Participants who either were confident in their athletic ability, or who did not regard their performance in physical education class as important, were less worried about "messing up." Rita (o), for instance, when asked if she felt embarrassed if she messed up an activity, stated "Not really because everyone messes up a couple of times." Other participants indicated similar sentiments.
I don't care, It is only the people in my class.... It is not like I am being serious about it either. (Jenny [+])

You can just laugh it off because everyone will do it.... Coach has done it numerous times. (Jerry [o])

The last statement suggests that the teacher can help make the atmosphere become less threatening. Certainly the next statement suggests that one participant believed that his teacher had created a non-threatening environment.

He [Richard] just makes you feel comfortable. And once you are comfortable he tries to get you to think and do things. He may use a small trick or something but he makes you want to learn. He makes you realize that it is fun. (Peter [+])

The physical act of changing clothes for physical education class consistently was mentioned by the female participants and by some males. For the boys at the high school level changing represented time that they had to wait for students (usually girls). This, in turn, meant time taken away from the activity. The junior high school boys complained about the short period of time they had to change after class which sometimes resulted in them being late for their next class. For some female participants, changing was the only negative aspect of physical education class. For others, changing was a major contributing factor to their ambivalence toward physical education class.

I hate it. I get so annoyed with changing and rechanging. I think it [gym] is fun but changing! (Jenny [+])

I liked it better when we were little and just wore our gym clothes to school. It is not too bad but it would
save a lot of time if we didn't have to do it. (Rita [0])

The girls at the junior high school appeared less concerned about changing. Many of the girls spoke of a uniform which previously had been compulsory—one that had been disliked thoroughly. Comparison with the previous apparel might account for the lack of major complaints about their present uniform.

Many of the high school girls participated in units which required a distinguishing vest. Some students objected to these garments because of the smell, despite the fact that Elena washed them regularly. Roxanne (+) elaborated, "The best part of gym class, getting to take off those smelly vests. They smell so bad."

In contrast to many of the high school girls I interviewed, Carla reported that she had no problems with changing. She had developed a strategy for gym days.

I try to make it so that on gym days, I wear things that are really easy to take off and put on, so it is not a problem. Like I don't wear like combat boots so I have to unlace them. I just wear sneakers and things.

Dislike of changing clearly was an individual matter. Yet for some of those individuals changing was an issue, sometimes strong enough to prevent participation, despite the fact that they enjoyed physical education classes once they got out of the locker room and into the gymnasium.

The most powerful factor identified in the environment section was the influence of peers. Peers (and teachers as
already mentioned in the teacher section) had the ability to make the class either a delight or a misery to each individual in the class. A second factor, compulsory changing into athletic gear, negatively affected some female participants.

**Schools: Organization and the status of physical education.** Many of the teachers in Carlson's earlier study (1991) believed that there was a connection between the students' attitude toward school and attitude toward physical education. In the present investigation, one teacher (Elena) expressed a similar belief, "There are kids that are totally, they are barely making it. Not just in PE but in life."

The student participants in this study did not indicate such a connection. A student who is "just surviving," however, is unlikely to volunteer for a study such as this. Seven of the participants (20%) reported that they disliked school, while the other twenty nine (80%) rated it favorably. Again this result might reflect the selective nature of the participant group.

For many of the students, sporting activities made school a good place to be. Comments such as the one below were common, particularly among the positive attitude students. This participant gave school seven points on a ten point scale.
I don't like the academic. I get frustrated with it 'cause I am not smart, but then I put it up to a seven because I like the sport and everything. (Jenny [+])

The organization of the school affected physical education classes in several ways. The administration controlled the size of classes. In this study, the larger the number of students, the less the students enjoyed the class. For instance, all of the participants from 8/9D complained about the large class size and attributed at least some of their lack of involvement in class to the high number of students. The logic is difficult to fault, I think the two teams are too big to play ultimate frisbee ... There are so many people on the ultimate frisbee team it is hard to get it to everyone, and for everyone to be involved in the game. (Samantha [-])

All of the participants believed that they would enjoy physical education more if the number in the class was smaller.

The reason for the 8/9D's larger classes was the absence of a third teacher at this particular time, which resulted in larger classes and fewer choices of activities and teachers. Participants indicated that this lack of choice affected them.

Samantha (-): I don't think it is fair. I know other groups have like three teachers, but then they should get a third teacher, I think, I don't think it is fair. Plus some classes got to do ping pong and stuff like that.

Tracy (-): And the other class had golf.... It seems like we always get stuck with the bad choices in our gym class.
The lack of the third teacher meant that this class missed out on many of the individual sports. If the other classes had the same size and choice, this resentment might not have been as apparent.

The policy of academically streaming students at the two schools also affected physical education class. This streaming resulted in students being grouped in academic ability groups for physical education class, and this contributed to differences among the various classes. For instance, HS-8/9C and JH-C were lower academically streamed students. The high concentration of students who were having difficulties adjusting to school resulted in some classes being more difficult to teach. The students were well aware of the division as the description of HS-8/9C class suggest.

Our class is not bright, they are dumb, like not smart, immature.... Whenever I use a big word, they are like "what".... I used the word utopia in one of my classes and everyone went "ah," and the teacher said, "do you know what it means?" and I go "yeah." (Sara [-])

I am in the lowest and the most misbehaved class. Like every week there is two or three people out on suspension. (Joslyn [-])

Further, the peer pressure from this combination of students made it more difficult for individual students to cooperate in class, as one participant described.

They think that we [me and Sara] are kiss ups... I try to be nice to the teachers but I don't want to be that nice because, I don't know. (Lydia [-])

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Perhaps it was no coincidence that the HS-8/9C consistently had the highest number of students who were non-participants. In addition, JH-C, an academically lower group of students, had the highest number of students who recorded either negative or equivocal attitudes toward physical education (Table 6, p. 71). In contrast, JH-D, which had a mixture of abilities, recorded responses that were similar to those of academically higher groups of students (Table 7, p. 71).

In the literature review, much of the section devoted to school context involved discussion of the hidden curriculum—a curriculum that is absorbed by osmosis rather than direct teaching. As an observer, I saw many examples of how physical education was not treated as the equal of other subjects. For instance, physical education class was only required twice a week. Further, the gymnasium was often used for other activities, relegating the physical education classes to a study period or to an improvised game in the smaller gymnasium. At the high school level, the physical education teachers could not sign passes to the library because they were not "academic staff."

How much of this attitude affected the students is difficult to determine because they, for the most part, were unaware of the influence. Nevertheless, many of the participants, particularly at the high school, had concluded
that the other teachers and administrators believed physical education to be of less value than other subjects.

It seems like it is not that important because it is so short. It is just like a half hour class, taking away the changing time in the locker room. (Mark [+])

When we come in from gym class, they [classroom teachers] might say something like, "You are not in gym anymore" and "gym is not important"... And they will say, "You are in English now". They don't really think it is that important. (Lisa [+])

For some reason I don't think that they [administration] think it [physical education] is as important as other classes. Like they think that math or algebra, English, social studies is a lot more important than gym.... If you skip ... it is like "just don't do it again." They just give you a detention or something. It is not like a normal class. Like if you were to skip English they would probably give you an in-house suspension. (Carla [+])

Findings from other studies (Brown, 1992; Earl & Stennett, 1987; Evans, 1984; Macintosh & Albinson, 1982) suggested that the various way the adult members of the school system view physical education affects the way students felt about the subject. Despite the requirement that students had to pass physical education to graduate, the school caste system had relegated physical education to a bottom tier. The data from this study suggest that the message that physical education was of less value than most other subjects was being absorbed by the participants. The statements by participants at the high school reflected this belief more strongly than those of the junior high school students.
How important the messages from within the school were, in comparison to the other sources of influence (family, peers, previous experiences etc.) was impossible to determine. I can conclude only that most participants were aware of the difference in status and that most of them, regardless of how much they enjoyed physical education, believed physical education was of less value. In the following example one of the participants has been asked which two subjects he would drop from the curriculum if this elimination was necessary.

Music and (silence) and (silence), I'd have to say gym. Cause, I mean, for gym, I get enough exercise anyway, so for me personally it is not a need. Even though I love it and I look forward to it every C block. But it is not a need ... like in other classes are, such as English and Math.... If it was an elective, I would take it.... So I think I would have to drop it. (Ervin [+])

Another telling remark was made by a student when she was asked what subjects she thought the administration would select for elimination, "Gym probably--something that is not useful at all" (Carmel [+]).

Although the school context, like the societal context, was affected by many different factors, teachers stood out as the most influential. Teachers, directly or indirectly, affected everything within this context, the curriculum, the class environment, and through this environment, peers. Finally, the school both affected, and was influenced by the attitude and behaviors of the physical education faculty.

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Group Differences

In this section, four different variables are discussed. First, the differences between the two sexes are addressed. I then contrast the differences among students of varying skill levels, while the third part contains an account of differences between students at the junior high school and high school. Finally, the differences and similarities among students in the three attitude groups are examined.

Gender Differences

Five differences between male and female participants were identified. These differences were: (a) males were considerably more enthusiastic about physical education than females, (b) mass media and the images they promote affected males and females in different ways, (c) sport was associated with popularity for the boys to a far greater extent than for girls, (d) physiological factors were mentioned occasionally by the girls (and never by boys), (e) families were reported to have different expectations for the girls and boys. Most of the differences were identified by analysis of the interview data, although the survey data and observations also provided information.

Attitude differences between male and females. The statistics gathered from the survey data indicated that males, at both the junior high and high school level were considerably more enthusiastic about physical education
class than their female counterparts. The figures in Tables 1, 2 and 3 (p. 68-69) show that over 32% more males reported favorable attitudes toward physical education, with no negative responses from the boys at the junior high school level.

My selection of participants was limited to those who were willing to participate and their selection was dependent on their attitude. As a result, the final group of study participants contained no boys with negative attitudes, while the equivocal attitude category included only two. The survey results indicated that considerably more eighth and ninth grade males held positive attitudes toward physical education than did females. The discussion in the next parts of this section suggest reasons for this difference.

**Mass media: Images that affect males and females.** Some of the differences in the way males and females were influenced by mass media have been alluded to in the section on influential factors within the societal context. The differences included: the greater exposure to magazines for females; males watching a great deal more sport on television than females, the influence of sporting heros promoted by the media on the boys; and the greater awareness of females concerning how the images in the media affect them.
Twenty-three of the twenty-six female participants (88%) subscribed to at least one adolescent magazine, with the magazine, Seventeen, being the most popular. Several participants subscribed to more than one publication. Males were less likely to subscribe and read magazines although several had access to Sports Illustrated. This magazine promotes mostly males sports. When females sports are included they tend to be in the more traditional female domains, such as tennis and gymnastics.

Although magazines appeared less influential for males, a higher percentage of boys mentioned watching television, particularly sport activities. Almost all of the boys mentioned basketball, football and baseball players as sporting heros. Some girls also mentioned male sporting heros, as well as figure skaters, gymnasts and tennis players. Others stated that they did not have sporting heros. The male participant who was most influenced by the "sporting idol" image, was Ervin (+), who admitted,

I put them [the Laker's basketball team] on a pedestal. Other people put politics. I put the Lakers. Maybe it is kind of wacked but it works for me.

The girls talked considerably more about the pressures of society which encouraged them to conform to certain norms than did the boys (88% of the girls opposed to 20% of the boys). The two quotations below are representative of many interview comments. I asked the girls where they learned
about fitness. They mentioned magazines and then in close succession, linked magazines with diet and appearance.

[magazines such as Seventeen are] very informative... They tell you that you should eat right and not eat a lot of junk food and try to exercise like every day, or twice a week, or something like that. (Karen [+])

Certain things get my attention, like I look at what you eat and in practically every magazine they always tell you that you should stay fit. (Samantha [-])

Three of the ten male students mentioned being concerned about maintaining their present weight. The reasons given for this desire usually revolved around ability to do sports--or the opinion of peers. One participant explained one of the main reasons he was determined to remain fit.

I think it is mostly very important because like then you wouldn't get picked on and stuff in gym. Like there is some kids on our class, they make names for them and stuff because they like can't do stuff. (Billy Jo [+])

Participants obviously differed in how often they were exposed to and influenced by the different media. Nevertheless, girls appeared to have a greater awareness and ability to talk about the pressure to conform to the media image. This pressure came originally from the cultural context but was promoted by the media. The male images were generally muscular, active sportsmen, lifting weights, running, playing sports and "winning" the women. The female images were more often passive, slim, alluring women, usually attracting the males.

Sport and popularity. Students found the term "popularity" difficult to define. One criterion, however,
was mentioned more frequently than most: if you were popular "everybody knows you." Girls also mentioned that by associating with popular people, they believed that they also would become accepted by the elite student group. Eder (1985) who researched interpersonal relations among female adolescents had similar findings. Other girls mentioned that they had tried this method and found that it did not work for them. "I guess it [gaining popularity] is hanging out with the right people. It didn't happen to me. I had all the right people and I didn't get popular." (Jean [o]). All of the participants could place themselves on a popularity scale. They were aware if they fitted into the following categories: popular, inbetweeners, nerds, dorks, or geeks.

Popularity for males was enhanced immeasurably by being a skilled player in popular sports. A few participants stated that popularity and sport were not connected. When asked, however, to name a boy who was popular and not involved in sport, they could not do so.

The popular males were aware of the status that their sporting prowess allowed them, as the quotations below indicate.

It [sport] is the main thing. I mean, actually to be good at a sport makes you popular.... If you are incredible at sport you are going to be popular.... It is pretty important I guess. (Ervin [+])

That is how I got popular at school through football. Football has all the popular people. I think it is the biggest sport in the school even though our team is losing (laughs). Maybe we have won three games this season, but it is still the most popular sport in the
school.... I would say the most popular person in the school is Harry. He is in the football team and is the captain. (Peter [+])

Peter personally did not like Harry a great deal. He stated, "Personality? Well he likes to bug people. He bugs me a little." Harry, however, because of his status as captain of the football team, was "the biggest person" in the school. A further advantage of being on the popular sports teams was mentioned by Ervin and confirmed by Peter, "usually the athletes get most of the girls." Excelling in less traditionally male sports did not necessarily result in popularity. For instance, one of the male participants (Jimmy [+]), an excellent tennis player, was not considered popular.

Excelling in sport did not necessarily result in increased popularity for females and most students were aware of this distinction.

I think a good soccer player doesn't turn you popular if you are a girl. I think it is all looks and attitude. But if you are a good basketball player for a girl it doesn't matter. That is a good thing, but it is mostly looks and attitude. (Ervin [+])

I think it [popularity for girls] has to do with looks ... [But for guys] football, basketball, softball and baseball, and all that, it [popularity] has to do a lot with sports because I think that is where the guys meet. All the football players ... they all hang out together, and they are known as the popular people. There are some girls on sports that are popular but that doesn't really have anything to do with it. (Carla [+])

Physiological factors: Menstrual cycle. The one genetic factor that I expected to be mentioned by the girls
as a barrier to physical activity was their menstrual cycle. The fact that this was mentioned very infrequently might be explained by girls' discomfort in raising this topic with an adult, particularly one whom they did not know well. Two participants alluded, in somewhat veiled terms, to the influence the menstrual cycle could have on their desire to do physical activity.

Alexis: If you wake up tired. If you go to bed late or get up early; if you are too tired, or you feel sick; or you have a "problem."

Janet: Yeah, that is when you don't want to take gym—when it is that time of the month. You just feel like sitting down and going to sleep.

In retrospect, I believe that I should have asked the girls directly about the effect their menstrual cycle on their attitude toward activity.

Different expectations for the girls and boys.

Participants indicated that boys were expected to play sport. For instance, one male participant stated, "I play things that had to be taken like minor league and t-ball." Activities like these were almost obligatory for boys. In contrast, the girls, particularly by eighth grade described themselves as different if they enjoyed sport. The words of one participant illustrates the way she felt unlike the other girls, "I like any physical exercise. I am kind of queer" (Roxanne [-]). Others girls earned the names of "tomboy" when they continued to be interested in sport. In the mass media and family sections other examples of
differences in expectations were mentioned. These differences included the greater encouragement of sons in the sporting domain, and the belief of some female participants that women did not play sports such as basketball.

Differences Among Skill Groups

As mentioned previously, all the participants were placed into a skill level group, based on my observations and analysis of the videotaped lessons, although some consideration was given to skill-related statements by their teachers. I would like to restate that many of the students might be better described as "less practiced" rather than "less skilled."

I placed thirteen students in a high skilled group, twelve in the average category, seven in the average to low and four in the low skilled category. There were no low skilled boys (two boys were rated average to low) and only four low skilled girls (with five placed in the average to low skilled category) in this study.

In this section I discuss the way different skill levels affected the participants' attitudes and the factors that play a part in the formation of this attitude toward physical education. The identified differences among participants with varying skill levels included: (a) the influence of family on skills, (b) different elementary physical education experiences, (c) varying reactions to
different teacher behaviors and strategies, (d) different reactions to the curriculum, (e) differing response to the environment in the gymnasium, (f) different kinds of self concept (and as a result different self esteem levels). Finally, the experiences which various activities had afforded students, both within and outside the school context, led them to have certain expectations of physical education. The degree to which these expectations were met affected their attitude toward the subject.

**Family.** Almost all the participants claimed that they learned the skills of hitting, catching, throwing, and kicking with their family, not from their elementary physical education classes. I am reluctant to make conclusions about the differences family background made because of the small sample of low skilled students in this study. Nevertheless, family members of high skilled students were mentioned more frequently as either being athletic or encouraging sporting activities more than the families of the lower skilled students. The parents of the latter appeared less concerned about their children's development in coordination and athletic skills. In addition, their fathers were less likely to be involved in sports. This finding is similar to those found in several studies (Macintosh et al, 1981; Godin & Shephard, 1986).

**Previous physical education experiences.** Because of the different emphasis families placed on sporting ability,
students entered the elementary school with a variety of skills levels and varying degrees of confidence in their athletic capabilities. The degree to which the students' skills had been developed appeared to play a definite part in students' early enjoyment of physical education class. Not one high skilled player reported disliking their earlier physical education class. For instance, all of the higher skilled participants in the negative attitude category enjoyed their elementary physical education experience, as this statement suggests, "I used to like gym.... Like in kindergarten to seventh grade I always waited for gym" (Samantha [-]).

In contrast, all of low skilled students disliked their earlier experience a great deal. Maureen (-) explained how her low skill affected her confidence and, at times, her degree of effort in earlier physical education classes. "I just didn't like it because I wasn't good and I just felt like I should just give up because it wasn't worth trying". These feelings, no doubt, also discouraged her and others with similar feelings from joining other sporting activities.

The average to low skilled girls often reported not enjoying elementary physical education class a great deal. They stated that high teacher expectation and their own desires to excel in sports placed pressure on them. This pressure sometimes had a negative influence on their
attitude toward physical education. The boys all reported enjoying earlier physical education classes, although the high skilled boys mentioned liking the subject more now, because it was more competitive than at the elementary level.

Teacher behaviors and teaching strategies. The lower skilled students were particularly vocal about their dislike of being singled out by a teacher. Sara (-), a student who described herself as the "most self conscious person there is" depicted her image of the ideal physical teacher as "[Someone] who will not embarrass you in front of everyone."

The following discussion then took place.

Lydia (-): It is okay if they are trying to show you how to do it, but I mean, after or separate.

Sara (-): Not in front of the whole class.... You just want to shrivel up and roll down a crack into the ground.

The various students coped with these embarrassing moments in different ways. Judy (+), a high skilled student, claimed that she didn't really mind being singled out "because I don't really care. I don't pay attention anyway." Lilliana (-) and Maureen (-), both low skilled students, although they repeatedly acclaimed their appreciation of Gail's interest, developed a system to warn each other when Gail was about to overstep the boundaries and single them out in the cafeteria. "So if I see Ms G coming I start talking about my cat and she [Lilliana] will start talking about her grandfather's dog ... because we
want to seem to be engaged in a conversation." In this way they hoped to avoid Gail's individual attention in a public place and prevent her asking embarrassing questions, such as "Hey, have you two signed up for track yet?"

Curriculum. The low skilled students preferred activities which were less competitive and did not place them on display. Often the activities that fulfilled these two requirements were games, rather than sports. Surprisingly, several low skilled students mentioned bombardment as one of their favorite games. They could mention times when they had been successful and the balls used for this game were soft which did not frighten them as much as some of the harder balls. In addition, many of the students stated that the lack of rules in this type of game was a distinct advantage.

The average to high skilled students often were tolerant of the introduction of games, and they thought these provided a break in the routine of traditional "real" sports.

But if we play sports all the time I think it would be really boring, so we play a game that we made up.... It was fun because it was like a change. And cause we do all these sports forever, and everything you go to a new school they have different games so that it is like a break from all the more traditional sports that we play. (Terese [+])

Like when we play basketball, I go totally nuts.... I like it when we play soccer, hockey. I like that because they are normal sports, but I think I would rather do that, but it is also kind of fun to have a change kind of thing. (Ervin [+])

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Their major complaint centered around games which they considered "childish", "corny" and beneath their dignity. The high skilled players also tended to mention their dislike of activities such as dance and tumbling, while one of the few activities most low skilled players mentioned liking was dance.

Ervin (+) acknowledged that "real sports" brought him more recognition, "Everyone knows me because of basketball, how do you get noticed playing sports that aren't even real?" The physical education class provided the opportunity for some students to illustrate their prowess in sports. For instance, Mark (+) who did not play for a school team, indicated that physical education class gave him the opportunity "to show other people what you can do". The lower skilled players did not want that chance.

Environment. The low skilled students believed that being "on display" made physical education class more embarrassing than other classroom subjects. For instance, a low skilled student, Michelle (-) stated, "Sometimes I feel like everyone is watching me." Another participant expanded on this thought,

There is a lot more possibility to mess up ... Like if I am in a regular class, I don't raise my hand or anything. The only time that I call attention to myself is if a teacher calls on me, but in gym class I have to go out there and I have to be part of the team. So people are watching and stuff. (Maureen [-])

The very nature of the class meant that students could not avoid being seen by their peers. There was nowhere to hide.
in the gymnasium. For the higher skilled students being on display was generally an advantage, as the examples given by high skilled students in the curriculum section illustrated.

**Self concept and skill level.** Some of the low skilled students had convinced themselves that they did not have ability to be "good at sport." For instance, in answer to the question "could you be good at sport?" Maureen (-) replied, "No, I don’t really think so, cause I am always afraid of the ball and puck." Even if they exerted maximum effort, the students really did not believe that they were capable of improvement. Lilliana (-) illustrated this belief when she stated "I try as hard as I can but I am not good at it." This belief affected how they approached the class because they were certain that they would "mess up" and be embarrassed, let their team down, and possibly be ridiculed for their mistakes. The high skilled students approached class very differently as this quotation illustrates, "Not to brag, but I usually do good anyway so I don’t really have to worry about my personal performance" (Ervin [+]).

**Expectations and the ideal physical education class.** The higher skilled students had developed firm ideas of what their ideal physical education class would consist. First, both the number of times class met per week and the length of the lesson would be increased. Second, many of the high skilled participants would eliminate the warm up and drill
sessions or alter then. If these factors are combined, what many of the students were saying was that they liked physical education because it resembled sport (or in the case of the high skilled negative attitude students, they would like this subject more if it resembled sport). In fact, one student explained her ideal physical education class,

I think if they are going to have gym class, they should have it every day, to make it seem like a class, a real class ... It could be a real team, what you do every day at practice after school. (Roxanne [+])

The lower skilled female participants wanted a more equitable situation in the gymnasium. Unlike the higher skilled students they suggested that classes should be divided by sex, rather than ability. Perhaps these students equated boys with higher sporting ability and therefore obliquely also were referring to ability. The boys' more aggressive behavior scared the less skilled and less confident participants as this quotation suggests,

I don't like coed gym because the boys are more aggressive than girls are. They go after the puck more than girls. If there were just girls it would be easier to play and I'd probably be a better player. (Michelle [-])

One of the higher skilled female participants was adamant that she wanted coeducation classes to remain, although she also advocated ability grouping. She explained her reasoning,

I plainly would not like it.... I usually play games with the boys anyways because they like do more stuff and the gym teachers would probably change the rules if
they were all girls. Like they would probably make it easier, and I wouldn't want that. I would want to play with the boys. (Roxanne [+])

**Reasons for changes in attitudes.** Some students had changed their attitudes toward physical education, indicating that they now held more positive or more negative attitudes toward the subject. Analysis of the data suggests that some of this change could be attributed to skill level and the way students adapted to what they perceived as their strengths or weaknesses in athletic ability.

Some of the high skilled athletes, even those who presently held positive attitudes, mentioned the lack of variation in the physical education curriculum. Some of the higher skilled players' current dislike of physical education could derive from lack of challenge and boredom, with repetition of activities and drills throughout their physical education career. A quotation by a high skilled athlete who currently holds a positive attitude, suggests that the potential to alienate more students was there if variety was not injected into the physical education programs,

> Every year you do the same base, like dribbling and passing for the first five days of gym in basketball and soccer. Like you already know it from kindergarten, so why do they have to do it every year? (Mark [+])

Statements such as "we don't learn anything" and "it is so boring" were made more regularly by the high skilled negative attitude students.
Everyone said that you have to take gym. But I don't think it does anything. Half the class just stands there. It doesn't get you in shape or anything, and most of the people do sports. It is just kind of useless. (Monica [-])

In contrast, several girls in the average to below average skill range who disliked elementary physical education now enjoyed class at the higher level. They attributed this change in attitude to an acceptance of their perceived skill limitations.

I didn't like it [physical education] as much as I do now. I just get all into it now. I just act stupid. Back then we were all trying to be all good at it. (Jenny [+])

Inevitably when I discuss my research and mention the students who hold negative attitudes toward physical education, people nod wisely and make statements similar to the following: "I would have hated gym too if I had been fat, unskilled, or uncoordinated." There is an immediate assumption that if students are "good at sport" and in reasonable physical condition, they enjoy physical education. Only four of the thirteen students in the negative attitude category (the four low skilled participants) support this hypothesis, while the presence of four high skilled girls in this same category weakens this assumption. The presence of average to low skilled students in the positive attitude category also suggests that skill level is not always the reason for a positive or negative attitude toward physical education. Nevertheless, data analysis from this small sample of students suggests that
skill level was an influential factor in forming student attitudes toward physical education, particularly at an earlier age. Skill level definitely changed the experiences of the students, if not their attitude. Skill level also affected behavior.

**Differences Between Junior High and High School Participants**

Several factors which differed for the two school levels were identified during analysis of the interview data. These were: (a) the warm-up activities being more accepted at the junior high school, (b) the lower status of the physical education teachers at the high school, (c) an increased emphasis on the value and purpose of physical education at the high school level, (d) the change in the role models for high school students (particularly girls), (e) an increased number of students rejecting physical education, and (f) less participation by negative attitude students at the high school level. Except for the last issue, which will be covered in the behavior section, each of these aspects will be discussed.

**Warm-ups.** Although the junior high school students complained about the warm up activities as much, or more than the high school students, the majority of them believed that warm ups were necessary and important. The teachers at the junior high had a set routine of stretching and strengthening activities in which students participated, regardless of the activity being taught. At the high
school, there was less conformity between teachers. Some insisted on a warm up, while some did not. The warm ups at this level were less extensive. Perhaps these factors combined to convince the high school students that warm ups were not an essential component of the physical education lesson.

Status of physical education. Quotations included in the teacher section suggested that the status of physical education teachers at the high school level appeared to be lower than those at the junior high school. Similarly, the status and value of physical education as a subject appeared to be lower at the high school. Data analysis suggests that there might be a connection between the two factors.

The physical education teachers and their subject appeared to be more accepted by the administration at the junior high school. For instance, the junior high school principal often would enter the gymnasium to observe classes. In contrast, the principal at the high school was never seen in that environment. Perhaps, the location of the gymnasium had some influence on the amount of attention received since the gymnasium at the junior high was located close to the administration offices. Regardless, the majority of junior high school students believed that the administration did support and value physical education (although many did not think the classroom teachers held the same view). Students suggested that the principal and
deputy principals' involvement in teacher/student games was evidence that the administration cared about physical education.

Naturally, much of the respect a teacher is given relies on behavior of each individual teacher. Nevertheless, statements by students in this study suggest that the status of the subject being taught may influence the way some students view the teacher.

**Fun versus value of physical education.** The word "fun" was raised substantially more in the conversation of the junior high students, while the high school participants talked more about the "value of physical education" (or lack of) or the fitness aspect. Many participants at the junior high school level mentioned "fun" (or lack of) consistently in connection with their conversation about liking or disliking an activity. One the most sophisticated of the junior high student students, stated, "It [gym] doesn't have to be all fun but it has to be somewhat entertaining" (Ivy [-]). Participants at the high school usually mentioned fun in connection with their elementary school experiences and with teachers. Much of the fun of which they spoke in the present tense, however, was in connection with their peers. In addition, they included more conversation about "usefulness" and "value".

The division appeared to be between the junior high school and high school level, rather than between eighth and
ninth grade. The physical move to a new school and the presence of older students in the same class may have resulted in the eighth graders in the high school adopting the values of the ninth grade students.

This change in attitude supports DeMarco & Sydney's (1989) study which suggested improving and maintaining fitness become increasingly important as students get older. Having fun was still important at high school, but it centered more around friends, rather than the activity itself. Students at the higher level were more likely to analyze the reasons for doing physical education in terms of value or purpose rather than just fun, as this extract from an individual interview suggests.

I like gym class and if they are going to continue it, great but if they are not, I am not going to be ... "I want them to continue gym class." It is really not that important.... In all my life, I have not really learned anything in gym class. I mean I like it. It is fun. (Roxanne [+])

Being fun was no longer enough for many of the high school students, and for those who did not find physical education either fun or useful, there seemed no reason to include this subject in the curriculum. One junior high school participant differed from the rest of her school mates and had adopted an attitude similar to the high school students. She summarized her feelings that fun was not enough,

I don't enjoy it [gym] more. I just think it is more like gym. Back then [elementary school] it seemed like it was more for fun. You didn't really get anything out of it. But here it is gym and you really learn something. (Ivy [-])
Change in role models for high school students.

Reference groups were defined as "groups whose standards and beliefs one accepts and measures oneself against" (Oskamp, 1991, p. 166). Each participant was asked if there were people they looked up to and admired and who influenced the way they thought about sport and physical activity. At the high school level, influential people most often were local athletes, usually somewhat older and more experienced than the participants. Girls, in particular, were more likely to select these more accessible role models. In contrast, the participants at the junior high either did not mention a reference group in the sporting arena or spoke of Olympic or professional players. For instance, one participant mentioned how she looked up to her cousin in track,

She like is pretty good. She runs a mile to two miles every day and even when she is not doing track. She plays golf. She does soccer and she does lots of activities. She is like a role model for me. She has like a good personality ... I think she has like every quality. (Samantha [-])

Increased number of students rejecting physical education. Increasing awareness and the growing importance of their peers affected students more as they reached the high school level. The increasing influence of peers resulted in students responding less to teacher and parental pressures. Observations at the high school level revealed that some classes consistently had three to four students
who would not participate. In contrast at the junior high school level, no student was observed sitting out.

Some of the high school girls who participated in class did so with considerably less outward enthusiasm than did their junior high counterparts. These students had developed a greater awareness of the boys in the class. A participant who liked physical education explained the changing attitude and behavior of other girls in her class as she saw it.

I think they think it is uncool to have fun in gym. Like they have to please them. I don't know who they are trying to please. All the boys are too into the game and the girls playing don't care what they are doing. Like girls don't look at girls saying "She is not into gym class. She is so cool".... I think it is really queer if you just stand around because you think it is uncool to participate in gym class. Roxanne [+]

One of the students also alluded to this change in attitude and behavior, although she gave slightly different reasons for this change

I don't think nobody brought up the point that just because they [the boys] don't pass to us, it is not all their own fault. Because it is true, the girls, we are like more social now than before and we always like stand around and talk. (Sandra [-])

A final reason for a change in attitude could be derived from comments similar to the one below which connects the growing awareness of the boys, and the dynamic that results in class because of this growing awareness.

You don't want to do anything really competitive because then they [peers, in particularly boys] will say something about that, but then if you don't do anything they will say something about that too.... You don't want to participate fully because like some of
the boys in our class, they, like, participate too much, and you think "what an idiot" and then other people like me don't participate enough and they come up and say "why didn't you even try?" (Sara [-])

The statements above suggests that female students are particularly prone to the influence of peers in their class at the early high school age. Boys were less likely to report this pressure, although even the best athletes were not entirely immune to this pressure.

But I don't go all out really in this, because I feel kind of embarrassed because my girlfriend is in this class... I just feel stupid sometimes, you know. but I usually go out all the way and don't really care. (Ervin [+])

Differences and Similarities Among Students in Each Attitude Category

Oskamp (1991) stated that "an attitude is an theoretical construct which is not observable in itself, but which mediates or helps explain the relationship between certain observable stimulus events (the environmental situation) and certain behavioral responses" (p. 14). The cultural, societal, and school contexts described in this chapter provide the observable stimulus events. Factors such as skill, exposure to, and success in sport, different school experiences, and behavior of family, peers, and teachers all interact to help form student attitudes.

Fifteen students were placed in the positive attitude category, eight in the equivocal and thirteen in the negative attitude category. The small numbers and the unequal distribution of various factors among the three
groups make comparisons difficult. Nevertheless, there were some clear differences among students in the three categories. These include the facts that (a) the negative attitude category contained only girls, (b) all four of the low skilled students were in the negative attitude category, (c) the positive attitude students were less likely to object to the type of activity offered in class, (d) the attitudes of the participants in the equivocal and negative categories appeared far more activity-driven, and (e) the image of the physical education teacher often was different for those in the various attitude categories.

**Negative attitudes and sex of participants.** The difference between male and female responses to the survey have been mentioned previously. No negative attitude males were in this study, but this absence does not necessarily mean that some boys did not have some negative attitudes. The small number of negative responses from male students in the survey could be explained in a number of ways. First, fewer boys returned their parental consent forms and as a result fewer boys participated in the study. Perhaps the boys who held negative attitudes toward physical education were less likely to participate. Second, perhaps because of all the factors discussed with regard to the three different contexts (cultural, societal and school), boys do hold more positive attitudes toward the subject. Certainly, analysis of the data suggests that being "good at sports" provides
males with more positive reinforcement from family and peers than it provides females.

**Low skill and attitude.** The only four low skilled students in this study disliked physical education. All four girls were small, slight, and timid. I believe this lack of aggressiveness was closely linked with their low skill. Students who believed they lacked competence in all athletic areas were unlikely to enjoy physical education. When the low skilled student experienced success (such as in dance) they were more likely to respond favorably.

**Reaction to different activities.** The positive attitude students rarely criticized the activity being played. Naturally they had certain preferences and favorite sports, but they were willing to accept and enjoy any activity introduced. In contrast, students in the equivocal and negative attitude categories were far more likely to report dislike of certain activities. The only activities criticized at all by positive attitude participants were dance and the tumbling unit.

**The image of the physical education teacher.** Two interesting student perspectives concerning teachers were identified. Many students, generally those with positive attitudes, saw physical education teachers as more approachable than most other teachers. The word "friend" was used frequently. The participation and involvement of the teachers in a less formal setting led students to view
physical education faculty differently than other teachers. The second perspective came from the negative attitude students. They connected the status of physical education as a subject and the status of the physical education teachers. This connection presented a less than favorable picture and was much more prominent at the high school level.

Similarities among the attitude categories.
Surprisingly, there were more similarities than differences among the students with different attitudes. First, almost all students reported valuing fitness and sport. Most, even the low skilled, played some form intramurals or out of school sport. Comments from participants in all attitude categories suggest that cultural, societal, and school contexts had convinced most students that activity was valuable. Almost all participants connected fitness with appearance. Despite these beliefs which concern closely related areas, almost all of the students believed that physical education was not of particular value at the junior high and high school level, although most conceded that it had a function at the elementary level.

They believed that the main advantages of having physical education class was to provide a break in the day, a chance to run around and have fun. The majority of students liked physical education, but they believed the subject offered little in the way of value. Finally, all
but one student could remember times that they had enjoyed physical education class. The fact that they held some positive memories toward this subject suggests that the potential to reshape attitudes may exist.

**Student Behavior**

Within the physical education setting, there is a great deal of movement, noise, and action. Up to forty students move around the gymnasium or field, equipment is being thrown, kicked, or hit, whistles are blown, instructions are given loudly to transcend the noise, while the students call for the ball, frisbee, or puck. One participant described how a spectator might depict her class. She is watching a video-taped lesson.

It is kind of like when you watch a baseball game. It looks really exciting and interesting, but if you play, it is like, "Oh God, I am here. I don't want to be doing this." You watch this and you think that people are actually having fun when you know they are really not. (Sara [-])

Sara's words serve as a warning that what a spectator may observe in the gymnasium might not be reality for some of the participants in the class.

The second purpose of this study was to discover more about the connection between behavior in physical education and attitude toward this subject. Three parts of this section present the data analysis of student behavior and their explanations for their actions. First, the relationship between student attitudes and their behavior is
described. Second, the differences in behavior among students with varying attitudes are discussed. Finally, the connection between attitude and behavior is summarized.

Relationship Between Student Attitude and Student Behavior

Although teachers rated students' attitudes accurately about eighty percent of the time, it is not surprising that some of their predictions were inaccurate. They indicated that their ratings were based on student behaviors, using the rational assumption that behavior reflects how a person feels.

Behavior observed in this study, however, did not always reflect students' attitudes. For instance, two participants who reported having a positive attitude toward physical education came late to every class I observed. During the stimulated recall session, their conversation reflected their unawareness of just how late they were for class. The fact that they disliked changing (to them a completely separate issue) affected their behavior but not their positive attitude.

Carmel (+): We are not even there [in the class].

Jenny (+): We never are, we never go to that part [the warm up].

Carmel: We are always changing and debating whether we should take gym.

Jenny: Maybe I am just too lazy to change.... I am a slow poke and I am really pokey about how I do it so it takes me for ever. (Later) Wow, we take a real long time to get dressed. (Later) Carmel, we are so late! Carmel: Are you sure we are in this gym class?
One more example illustrates the opposite situation. A participant's dislike of an activity was not reflected in her behavior. She explained that her naturally happy demeanor was stronger than her dislike for an aspect of physical education class.

I just felt inside that I didn't want to be there. I would say it to my friends, but then the teacher came around I was like.... You probably couldn't tell unless you asked somebody. I usually don't show how I feel. I usually don't tell people either.... The teachers probably think that a lot of people like that and a lot of people really don't. But it is something you have to do. It is required, so why have a bad attitude and make it worse? (Kate [o])

Although students' behaviors usually were more representative of their feelings than the example above, many students in this study adopted behaviors which did not always reflect their true attitude toward the subject.

Fishbein and Ajzen (1975) suggested that external pressures and other considerations could cause people to behave in a manner contradictory to their attitudes. External pressures, such as being required to change into athletic clothes or the desire to obtain a high physical education grade, act together with attitude to determine behavior. For instance, in the case of the girls who came late to class every day, the pressure of having to get changed altered their behavior at the beginning of the lesson. Once they were changed and the pressure was relieved, their behaviors reflected their positive attitude toward the subject.
Other students adopted behaviors which hid, or attempted to hide, their dislike of a certain aspect of the class, or their overall attitude toward the subject. I have called this type of behavior faking. This strategy was not employed exclusively by one skill level group, students at a particular school level or necessarily by one sex (although I observed this behavior more among female participants). The tactic usually was adopted to maintain or increase students' physical education grade. One male participant explained how he employed this strategy, "In dance ... when the teacher's back was turned, I would just stand there, instead of following the dance steps" (Alan [o]). When asked why he faked enjoyment while the teacher was watching, he admitted, "so I could get a good grade."

These descriptions indicate that students, like adults, will modify their behavior if they believe it is advantageous to do so. Behaviors were dependent on factors such as grades, influence of peers, teachers, and parents, (the external pressures) and the students' self concept and the importance they placed on sport and physical education in their lives (internal considerations). As a result, participants' attitudes toward physical education were not always reflected in their behavior.

Differences in Behavior Among Students of Varying Attitudes

I found describing behavioral differences among participants in the three attitude categories sometimes was
difficult because of the other factors which also influenced student behavior. For example, students at the junior high school level were still influenced more by their teachers than their peers, and therefore were less likely than the high school students to reveal their real attitude in the behaviors they adopted. The sex of the participant also affected the way students behaved. The absence of male participants in the negative attitude category meant that I was unable to describe the behaviors of males who disliked physical education.

Finally, the skill level of the students played a significant part in how they participated in class. This factor was so evident that in my descriptions of behavior, I sometimes have divided the students who held the same attitude into two sub-categories—those who were high skilled and those who were not. For instance, to describe the behaviors of negative attitude students, I have separated the behaviors of those who were competent sports people and those who were low skilled. I have made a similar distinction in the positive attitude bracket.

Behaviors of Negative Attitude Participants

The behaviors of low skilled negative attitude participants. My observations indicated that the low skilled students who held negative attitudes toward class tended to either isolate themselves, or be isolated in physical education class. If they were not alone, they...
would stand with one other student in the class, usually someone who also was "different", perhaps because of their lack of skill or size. These girls adopted behaviors which correspond to the actions of "lost souls" (Griffin, 1984) or "invisible players" (Griffin, 1985). The behaviors were designed to help the students disappear, and as a higher skilled player suggested, the students were often quite successful.

She tries but she is really clumsy.... She is uncoordinated and she can't catch it much.... I don't really see Heather in gym class ... I don't think she really does anything.... No one really notices her. (Roxanne [+])

Griffin (1984) identified four nonassertive sport behaviors among the female participants: (a) giving up, (b) giving way, (c) hanging back, and (d) acquiescing. Both my observations and the interview data indicated that many of the students in this category adopted similar behaviors. For instance, participants often "gave up" and made only half hearted attempts to become involved in play. One participant explained her strategy, "I don't move, well not a lot, because I don't really want to get the frisbee because I never catch it" (Lydia [-]).

The students who "gave up" were consistently ignored by the higher skilled players.

People don't really pass it to me because I don't really know what to do.... I don't really mind. If I was better at floor hockey, then I would want to do it more, but since I am not all that great at it, it doesn't really bother me. (Lilliana [-])
These players were relieved when other students adopted this type of behavior because it reduced the chance of embarrassment. For instance, one participant stated, "I feel like if I make a mistake then they [peers] will remember it forever and ever and everything" (Lilliana [-]). Statements from the higher skilled players suggest that they had little tolerance for students who gave up, "And then [there is] a group of girls who don't even try. Boys, even if they don't have the skill, at least do something while the girls just stand around" (Jerry [o]).

"Giving way" included strategies such as passing off the ball, frisbee, or puck quickly, not taking a shot for goal, and asking other people to take the shot. Observations of classes indicated that, although some of this type of behavior was adopted by the lowest skilled students, they favored the tactic of "giving up", because this action allowed them to avoid contact with the ball or implement completely. If they were forced into a situation where they had to be involved, they did employ this "giving way" strategy. For instance, I observed one participant who would always quickly threw the frisbee back to the person who threw it to her.

Several students in this category were observed passing up their allotted practice turns (particularly in the gymnastics unit). This behavior was described by Griffin (1984) as "hanging back." Further, observation and data
from student interviews suggested the students avoided play by not moving quickly enough and allowing others to get the ball or puck. One participant described how she would position herself so she could avoid the puck much of the time, "Like I am here, and there are like other gym people here and two people go for it because I stay far away" (Tara [-]).

Another observed behavior which fitted into the "hanging back" category occurred in the ultimate frisbee unit. Two participants were placed on opposing teams. They then proceed to guard each other. This is an extract from their stimulated recall session.

Lydia (-): Look at me guarding (laughs).
Sara (-): We are just running after each other all the time.... When she [Lydia] is like guarding me, we have fun because we are not afraid of each other.

During one coded ultimate frisbee game lasting thirty minutes, Lydia touched the frisbee only three times, and in two of those instances the frisbee was handed to her after a goal or foul. Nevertheless, by adopting this type of behavior, she could, to a casual observer, appear to be fully engrossed in the game.

Often the lower skilled girls were fully aware of their perceived limitations. This recognition lead them to select positions on the field or court which allowed them to avoid most of the action. Griffin (1984) labeled this type of behavior as "acquiescing." The low skilled girls in the
observed floor hockey unit all selected defense or wing positions. This behavior was not used exclusively by low skilled students who held negative attitudes. All girls, except positive attitude athletes, used this type of behavior.

The four nonassertive behaviors described above were adopted at various times by the students in this category. These "lost souls" employed these strategies to avoid attention being directed toward them. This non-involvement in class not only reduced the chance of embarrassment, but also the chances of improvement as students continued to avoid activity and remained "less practiced" and therefore "less skilled." Their discomfort with their lack of success negatively affected their attitude toward physical education class--a class in which their inadequacies were highlighted in front of their peers.

The behaviors of average to high skilled negative attitude participants. Most higher skilled participants adopted similar behaviors to the less skilled in the same attitude category (negative), although often they adopted these behaviors for different reasons. For instance, students used the "giving way" strategy not because they felt incompetent in the activity, but because they were bored, unchallenged, or just did not want to be involved. A participant described how she reacted in class, "If the frisbee comes to me, I will try to catch it but I don't make
an effort to go get it" (Judy [-]). This type of behavior corresponded with another type of player identified in Griffin's (1984) study, "femme fatales."

Femme fatales were described as girls whose interest in the game was consistently low and who often presented discipline problems. I noted several higher skilled girls in the negative attitude category standing in a group talking while the frisbee game was played around them. One participant had her arms folded several times during the game. Femme fatales often stated class "was boring". Sometimes to avoid participating in class they would claim that they had forgotten their uniform, "Sometimes I just don't feel like it so I forget my clothes in my bag" (Joslyn [-]). To completely avoid class, they occasionally faked illness, "Once, I just pretended I was sick. That time it worked, but other times, I guess I went" (Tracy [-]). Femme fatales were identified only at the high school level.

Despite their negative attitudes, the female participants' behaviors were not always as blatant as described above. Other factors intervened as this participant illustrated,

I really don't care what I get in gym but I am just worried that if I get an F that for next fall I won't be able to play a sport. Cause that is the only reason I really try in gym. (Judy [-])

Because of external pressures, participant in this category often fluctuate from the role of femme fatales to fakers.
Although students from all skill levels, all grades, and all attitude groups used faking strategies, the participants in the negative and equivocal group adopted this behavior more often. In other categories, students employed this behavior occasionally to avoid an activity that they disliked (for example a high number of push ups). The participants who held negative attitudes used this tactic more frequently. They would note where the teacher was situated. When they were being observed they would participate with what appeared to be reasonable enthusiasm. When the teacher was not observing them, they either stopped the activity or changed the task.

Students explained their techniques and the reason for their actions,

If we don't yell for it [the frisbee] she [the teacher] doesn't give us points.... It is easy to look involved and as long as you look involved you can probably get your gym points but if you don't really look involved then you won't get your gym points. (Tracy [-])

Samantha described how to look involved. She suggested "waving your arms and trying to get open." Another classmate who rated physical education positively confirmed this behavior and added more information.

I don't think they [students like Tracy and Samantha] want to be noticed at all... I can even hear girls go to me, they will put up their hands up and they will go "don't throw it to me, don't throw it to me".... They will just put their hands up because the gym teacher won't yell at them. Samantha (-) does that a lot... Lots of people do, like Tracy (-) does it too. She goes, "Oh, I hope they don't throw it to me." (Roxanne [+])

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One participant in the negative attitude category was identified by her survey only. Both my observations and those of her teachers indicated that this student held a positive attitude toward the class. Because of her skilled acting, I awarded her the title of "academy award winner." She explained her attitude and the behavior that resulted, "I will put up with it ... I have to do it, so I do it. I will do what I have to do" (Ivy [-]). This strategy differed from the faking strategy in that even when this student was not observed by teachers, her true feelings were not revealed in her behavior. This type of student could be identified only by talking to them.

Students adopting this type of behavior either are rare or conceal their attitudes so well they often are not detected. External or internal pressures, such as their desire for a good grade or their natural attitude towards life in general, prevented them from indicating their true feelings about physical education class. In earlier research I called this type of behavior "hiding disillusions" (Carlson, 1992a, 1992b).

Behaviors of Equivocal Attitude Participants

The participants in this category were strongly influenced by the type of activity being taught. If the activity was one they enjoyed, their behaviors tended to reflect their satisfaction. If the unit consisted of a sport they did not like, they often used faking strategies.
A testimony to their success in using this technique is that the teachers placed most of the equivocal students into the positive attitude category. The major difference between the "fakers" in this category and the "fakers" in the negative attitude category was that the former often were more successful. Possibly because they were enthusiastic about the program at least some of the time, their faking strategy appeared more genuine.

Perhaps it is simply coincidence that the only two male participants who held equivocal attitudes fitted into the "nice guy" category. Griffin (1985) described the behavior of these students as "generally more accepting in their interactions with girls and other boys" (p. 105). The two boys in this category tried to encourage others and often made positive comments to less skilled players. Although both boys were proficient athletes, they were not highly competitive. In contrast, the girls in this category tended to be competitive players.

**Behaviors of Positive Attitude Participants**

This category contains almost an equal number of males and females. Any differences in behaviors according to sex are described. Again the skill levels of the participants were significant, particularly for the girls, and I have divided the description of behaviors according to their athletic ability.
Behaviors of positive attitude participants who are average to low skilled. Almost all of the students in this category used the behavior Griffin described as "acquiescing." For instance, in the observed softball classes, almost all the bases were taken by the boys, although occasionally a high skilled girl would demand a base. When Richard asked them to change positions, some girls moved from right field to center field, then back to right field, although one selected the catching position. She explained why, "I don't like going way out there. I am not good out there. So I just stay in there and be catcher" (Jenny [+]).

Many of female participants in this group had perfected a protective tactic which I called the "clown" strategy. These students often had disliked elementary physical education and had decided that to try very hard in class was counter-productive to their enjoyment. They placed little or no importance on acquiring skill or winning in physical education class. By minimizing the importance of skill and winning, the participants convinced themselves that they could not fail, regardless of their level of success in an activity.

Jenny (+): I didn't like it [elementary gym] as much as I do now. I just get all into it now. I just act stupid. Back then we were all trying to be all good at it.

Carmel (+): Like we would take it seriously then, and we were afraid to do something that we might not do it
right, but now if we can't do something, we just joke about it and laugh.

In one observed softball class, a participant ran all four bases, out running the inaccurate throws. Despite the ball waiting for her, she elected to run home, and be declared out rather than safely hold third base. She explained her reasoning, "I ran and then I ran back. I didn't know where to go ... I just wanted to see. It seemed like it would be fun" (Carla [+]). In a similar incident, a participant physically held on to a player to stop her advancing to third base. I asked why, "Cause she was already out, I don't know ... because I wasn't suppose to do that" (Jenny [+]).

The "clowns" offered similar advice to other students. To enjoy gym they believed it was important to, "make it fun. Don't make it serious for yourself because that only puts pressure on you" (Carmel [+]). Physical education was supposed to be more fun than other subjects, "because you are more relaxed and ... it doesn't have to be like perfect. You can just try" (Carla [+]). None of these students even knew the game score, and because of their lack of interest in winning, their behavior in class tended to be unpredictable.

The final type of behavior identified was that of the "triers." These students (both male and female) liked physical education, and although they often did not possess high skills, they put in maximum effort. The triers, along
with those in the equivocal attitude category, mentioned learning as important in physical education. Perhaps the feeling that they were learning new skills motivated them and this was reflected in their behavior in class.

Behaviors of high skilled students who hold positive attitudes. The high skilled positive attitude participants often were more competitive and adopted different behaviors from the students who liked physical education but who were less skilled. Female participants in this group did not use "acquiescing" as a strategy. They were as assertive as the males. They demanded equal time, attention, and high profile positions in game situations. One highly competitive girl described her behavior in an ultimate frisbee unit,

They [the boys] must notice me more because I do weird things. I just up and down and I get right in front of their faces and say "I am open" and after they don't throw it to me.... I will yell at them. Like "you should have passed to me. You could have got a goal." (Roxanne [+] )

In fact, Roxanne's desire to win encouraged her to adopt an unusual behavior. She explained her tactics if her team was losing,

Half way through the game, I take off my vest and throw it down and switch teams ... or if I don't I just play for the other team, even with my vest because I hate losing.... Sometimes I just have to steal it away from one of their players and give it to another player... you just run up, you take the frisbee away from them and throw it to someone else on their team.... No one really notices, because no one really pays attention to me.
This type of student did not understand the behaviors of less competitive players. In fact, one participant suggested that the main advantage of physical education to other students would be to learn and gain this competitive spirit,

I am sure [gym] could get a person who doesn't play sports competitive because they understand what goes on in like a real situation. (Ervin [+])

I named the players who adopted these competitive strategies "Green Bay Packers," after Vince Lombardi's football team. (Lombardi immortalized the saying, "Winning isn't everything. It is the only thing.") These students would do almost anything to win the game. Nothing was more important to them than to be on the winning team. When teachers intervened and adapted the rules of games to be more inclusive, the competitive players were emphatic that these rules were a waste of time.

I think it is really dumb. Even though some of the girls don't get it, you have to admit some girls don't even do anything. They don't even try ... so I think that is a really stupid rule, because what if a boy is open and all the girls are covered. It is like you have to pass it to a girl? (Roxanne [+])

These highly skilled players enjoyed team sports and were completely involved in the game situation. Their involvement and skill often resulted in total domination of play. For instance, using a simple coding system which recorded the number of touches of the frisbee, I recorded two male participants as having a combined total of thirty-seven touches. This result was in direct contrast to the
two female participants who had a combined total of six touches. In one lesson, one participant threw the frisbee and then ran and caught his own throw.

Because of their fierce desire to win, these students were more likely to react negatively to the mistakes of their less skilled teammates. I observed one male participant theatrically fall down to his knees and put his face in his hands when a teammate threw an inaccurate pass. Most of these students believed the subject would be better if less competent players were eliminated, and the games were more competitive. They acted to create the environment they wanted, and in doing so they ignored the less skilled or less active players.

Although these students identified themselves as having a positive attitude toward physical education, they were quick to criticize others or the program if it lacked the competitiveness they desired. Although both males and females used this behavior, the females were more noticeable, because their competitiveness contrasted with the majority of the girls who adopted the nonassertive behaviors identified by Griffin (1983, 1984).

Several high skilled positive attitude boys also fitted into the "nice guy" category. They were proficient, competitive athletes who adopted a less competitive stance in physical education classes. There also were students whom I classified into the "trier" category.
Finally, one more type of male student was identified from the data. These boys were struggling to define their role in class and adopted a strategy that I have labelled "Politically Correct or PC Males." These high skilled boys struggled to become more inclusive and often would try to include lower skilled and female students. After some attempts, however, their competitive spirit would re-emerge. Recognition of their positive efforts to be inclusive by teachers did encourage them to continue with more positive behaviors,

Like at the end of one class, Ms E came up to me [and said] "I know you are trying to get to the girls and it is their fault that they can't get it so just keep doing what you are doing," so that just motivated me to continue. (Mark [+])

A Summary: Connection Between Attitude and Behavior

In the model presented in the first section, the various contexts (cultural, societal, and school) and the many factors contained within these were discussed. Any of these factors singularly, or in combination, could influence student behavior. For instance, a desire to fit in with peers might lead a student to behave in a manner contrary to her or his attitude toward physical education. Therefore, the reader should be aware that while attitude tends to be constant, behavior is more erratic and dependent on everyday occurrences.

I have categorized the various behaviors under each attitude category. Students, however, might adopt one
behavior one day and another the next, depending on the activity being played, the teacher, and their present mood. Nevertheless, the interview data and my observations suggest that the types of behaviors catalogued occurred more consistently in each of the attitude categories under which they are listed.

Data analysis suggests that behavior in physical education and attitude toward this subject are connected a high percentage of the time. This association was more apparent in the higher grades. Younger students were more likely to adopt behavior strategies either to avoid incurring the wrath of the physical education teacher, or disappointing the teacher. The need for adult approval was still in evidence in many junior high school students.

Teachers often deplore the changes they observe in students' attitudes during seventh, eighth and ninth grades. Some students mentioned that their attitudes had become more negative once they reached the high school. Several participants, however, admitted to liking physical education more now than at the elementary level. One of the major reasons that teachers find this age group difficult may be a change in behavior, rather than a change in attitude. Perhaps investigation of student attitudes at the elementary level would reveal more academy award winners and fakers.
CHAPTER V
DISCUSSION AND IMPLICATIONS

Most physical education teachers strive to foster positive student attitudes toward physical education and physical activity. They endeavor to achieve this objective more by instinct than science, working from trial and error, combining memories of their own school physical education experience with observations of student behavior during class. Some input from teacher preparation program also may contribute to the equation. An awareness of a missing link (the voice of the student) encouraged me to investigate formation of students' attitudes from the student perspective.

In this chapter I attempt to go beyond the words of the participants to identify what can be learned from their stories. Accordingly, the chapter is divided into five main sections: (a) an overview of the study, (b) a brief discussion of the methodologies employed, (c) comparisons of findings to those identified in the related literature, (d) discussion of the findings identified as important across the three contexts (cultural, societal, and school), and (e) conclusions drawn from the data.

Overview of Study

The purpose of this study was to investigate the following questions from the students' perspective: (a) what
factors contribute to attitude formation toward physical education, and (b) what is the connection between behavior in physical education and attitude toward that subject. Different types of methodology were employed to answer the research questions. First, 150 students in eight (eighth and ninth grade) classes completed an attitude survey. Responses to the survey, observation of classes, and teachers' ratings of students' attitudes allowed identification of students who held a variety of attitudes toward physical education class—positive, equivocal, and negative.

Thirty-six identified students who agreed to participate further were placed into interview groups which consisted of three students and the researcher. Participants attended two group interviews, as well as an individual interview and stimulated recall session. They also were asked to complete a physical education journal for a three week period. Observations and videotaping of the student classes occurred for four weeks. Finally, the four physical education teachers who taught the observed classes also were interviewed.

Each child is an individual and, therefore, each had her or his own story to tell. Nevertheless, data analysis identified enough similarities and differences among the students and the various groups contained within the study to suggest certain patterns, and to draw some conclusions.
Within the cultural context, three general categories of influence particularly applicable to physical education were identified: gender distinctions, idolizing of sports people, and compartmentalization of mind and body. Concrete examples of these categories of influence were more evident in the societal context—particularly in mass media and family. For instance, the importance of sport to males, the obvious respect top athletes received from the participants, and greater important assigned to academic subjects when contrasted with physical education classes were identified consistently from interview transcripts.

Data analysis suggested that mass media and family provided the major vehicles through which cultural norms and expectations were transmitted. For example, some families expected boys to be involved in sports, while girls were supported only if they demonstrated interest. The coverage of male sports on television had a major impact on both male and female participants. Some girls had come to the conclusion that women could not compete at high levels in the less traditional female sports. Experience in sporting activities, elementary physical education classes and interaction with peers had reinforced the idea that boys were better athletes—so much so that many students (regardless of their attitude) had decided that girls could not compete competently with boys. If the girls were skilled athletes they considered themselves different, and
were treated by others as an exception rather than a rule. All these factors affected, and were affected by the self concept and self esteem of the participants.

Within the school context, teachers battled to reduce gender differences, mostly unsuccessfully. Some teachers unwittingly emphasized different expectations for males and females. In addition, students had absorbed messages from their culture, society and school about the lack of importance of physical education—except as a break from the important academic classes. Surprisingly, more similarities between the three attitude groups were identified than were differences. Teachers were identified as the major factor in attitude formation toward physical education. Curriculum controlled, by the teacher, also was mentioned consistently. Peers contributed to the comfort or discomfort of the class environment, and the participants' strong desire to "fit in" often affected their behavior.

Behavior in physical education and attitude toward physical education often were closely connected, although the connection was less obvious in eighth grade than in ninth. Certain student behaviors were more evident in some attitude groups than others. For instance, behaviors such as "giving up", "giving way" and "hanging back" (first identified by Griffin, 1984) were techniques employed more by negative attitude students, while students in the positive attitude category were more likely to be
competitive and were less likely to use strategies such as faking. All girls, apart from the positive attitude athletes, adopted a strategy Griffin called acquiescing. Positive attitude lower skilled girls used this strategy in conjunction with a technique I identified as "clowning." Despite the identified connection between behavior and attitude, I would caution teachers and researchers about assuming that this relationship is simply linear.

Discussion of Methodology

This study differed from most attitude studies in that apart from a survey used to aid in student selection, qualitative methods were used. Therefore, a brief discussion on the effectiveness of these methods may assist others who are interested in asking similar questions.

Dealing with the adolescent population presents challenges that are different from those encountered when working with younger children or adults. For example, getting students to return parental consent forms presented a major obstacle. Appendix I outlines the method I used to encourage a high return rate. The move away from the influence of adults to the increasing influence of peers often does not work in favor of the researcher.

One of the limitations of this study was my inability to convince certain students that they should become involved in the study. If all students in each class had
agreed to participate, a different mixture of students would have been chosen. Males who disliked physical education and "macho" boys would have been included. Perhaps a male researcher could have persuaded the macho boys to participate. To gain the trust of the negative attitude boy would take more time than the six weeks allotted at each school site.

Observing and videotaping. Observing and video-taping classes provided a valuable perspective from which to examine the words of both students and teachers. Knowledge of the class procedures and activities helped me frame the more specific questions for the interviews and stimulated recall sessions. In addition, data from these sources allowed specific student behaviors to be identified. Although observation data are reported infrequently in this document, they provided a knowledge base with which to begin to understand the class environment. By observing students and their interactions with others I learned a great deal about the participants. The use of observations in conjunction with interviewing forms a powerful tool for this type of investigating.

Group interviews. Interviewing students in groups of three provided several advantages. On a practical level, meeting three students at one time increased the number of contact hours with each student. Second, in the group interview format students were able to question each other,
which provided valuable data which might not have been obtained otherwise. Third, students were with friends and therefore looked forward to coming to interview sessions. The major limitation was the possibility of students being silenced by others. Careful selection of the groups was essential. Having students write down their ideas before talking about them appeared to be a useful (though time consuming) means for reducing peer influence.

**Journals.** Only twelve students returned their journals. I suspect, despite use of brightly colored paper, the journals reminded many students of homework. The number of journal entries may have been greater if students had been given one or two specific questions to answer and told that these would be discussed during the individual interview.

**Stimulated recall sessions.** This method was valuable for refreshing students' memories about aspects of the class, provided that specific rather than broad questions were asked. Usually students watched the videotape individually. Occasionally, however, because of scheduling constraints, two students watched the videotape together and this often elicited more discussion than the individual sessions. Interviewing students in pairs for the stimulated recall sessions may offer a fruitful alternative to individual sessions.
Teacher ratings of student attitude. Before the student attitude rating session, individual index cards were prepared containing the name of each student in the observed class. Teachers were asked to place each student's card in either a positive, equivocal, or negative attitude pile. The physical act of placing this card made teachers think carefully about the process and elicited very useful comments as they explained why the students were placed in the particular attitude groups. I learned a great deal about the teachers and their view of students from these sessions.

Comparison With the Literature

Oskamp’s Factors Compared to Model

The original categories employed to organize and code data for this study were taken from the factors Oskamp (1991) identified as influential in attitude formation: genetic and physiological factors (sex, age, physique), direct personal experiences, parental influence, group determinants (school, peer groups and reference groups), and mass media. The data were analyzed initially using the factors as a framework. As analysis progressed, the model (Figure 2) was constructed to illustrate the connection between each of these factors.

The three different contexts (cultural, societal, and school) contain within them the factors Oskamp identified,
although adaptations make identification of them difficult to recognize. Therefore, the following explanation is included to illustrate how Oskamp's factors are connected to the model that resulted from the data analysis.

Oskamp (1991) identified genetic and physiological factors as influential in attitude formation. Certainly, the sex of the individual appeared to be a major factor in students' responses to, and expectations of physical education class. The data suggest, however, that cultural and societal expectations for males and females were far more influential than any biological differences among the students. These gender distinctions were evident throughout the data. For instance, the cultural context included gender distinctions. The difference in treatment of male and female students also was evident in the societal context (within mass media, family, perceptions of fitness, sporting experience, peers, and previous physical education experiences) and within the school context (teacher behaviors, the curriculum, the class environment, peers, and school in general).

The other influential aspect identified in the physiological domain was students' physique. Again, this factor is not identified as a separate component in the data. Nevertheless, the reader will identify examples of students being discriminated against by others because of their size (in perceptions of fitness and peer sections).
Further, the self concept of students was substantially connected to the way they viewed their bodies.

Direct personal experiences were not identified specifically in the model, although it is not difficult to realize that these experiences are contained within other factors (e.g., sporting experiences, interaction with family members, teachers and peers, and previous physical education experiences). Parental influences were widened to include a broader spectrum of family members. The data suggested that inclusion of the family as a whole (siblings and relatives, as well as parents) provided a more accurate picture of the influence of this factor.

Oskamp identified three group determinants: school, peer groups, and reference groups. The influence of the school is apparent within the school context, as well as within previous physical education experiences. The peer group influence is included in both the societal and school contexts. The reference groups, in which the area of sport and physical education were found to be influential only for certain individuals, are included mainly in the societal context (mass media and sporting experiences). Mass media promoted many of the reference groups, while within the sporting experiences, some students identified influential sporting role models.

Therefore, all the factors identified by Oskamp (1991) as influential in attitude formation were found to affect
student attitudes toward physical education. These factors are included in the model, although the identification of each may not be immediately obvious.

Self concept, which occupies a substantial position in the societal context of the model, was not mentioned by Oskamp. The data obtained in this study suggested that the factors mentioned above affect how individuals view themselves. Therefore, the way the self concept of the student interacts with the various factors is important in influencing the way the participants' attitudes were formed.

Comparison With the Physical Education Literature

Students' skill level, both their own athletic background and that of the rest of their family, teacher personalities and behaviors, the level of students' self esteem, and the influence of peers were identified in physical education literature as influential in affecting students' attitudes toward this subject. The mass media influence also has been recognized by some physical education studies and by other researchers who studied the influence of media on perceptions of fitness and appearance.

Students' skill level. Descriptive studies, such as those by Griffin (1985) and Portman (1992) reported less skilled students being publicly denigrated by more successful students. Further, many of the negative anecdotal records are from students who were either large or unskilled (Allison, Pissanos & Sakola, 1990; Portman, 1992;
Smith, 1991). Certainly, the four low skilled students in this study disliked physical education, supporting the findings that low skill level negatively affects students' attitudes. The presence of four high skilled participants in the same attitude category, however, confirms Tinning and Fitzclarence's (1992) findings which suggested that high skill level does not automatically result in positive students' attitudes toward physical education. Further, although there were no low skilled students in the positive attitude category, there were students who had below average skills. This finding indicates that although skill level is an influential factor in attitude formation, it is not the only factor.

**Family athletic background.** Regardless of the sex of the participant, the students in families with athletic male role models were more likely to be involved in athletic pursuits. This finding offers some support for other physical education studies (Godin and Shephard, 1982; Macintosh et al., 1981) which concluded that socialization into sport and physical activity begins at home, with parents (particularly fathers) serving as role models.

**Teacher personalities and behaviors.** Previous studies (Aicinena, 1991; Carlson, 1992a; Figley, 1985; Kollen, 1981; Luke and Sinclair, 1991; Pissanos & Allison, 1993; Portman, 1992; Robinson, 1990) suggested that teachers play an important part in helping to establish students' attitudes
Self esteem. Several studies suggested that students with low self esteem often disliked physical education (Figley, 1985; Halas, 1991; Luke and Sinclair, 1991; Macintosh & Albinson, 1982). Self esteem was not measured in this study, but interview transcripts did reveal some evidence of this aspect of self concept. Certainly, the students who had poor athletic skills appeared to have lower self esteem. Whether self esteem had been reduced as a result of lack of success in sport and physical education, or had developed earlier and grew to include students' attitudes toward physical activity cannot be determined from the study.

Influence of peers. Savin-Williams and Berndt (1990) stated that "by adolescence the role of peer friendship as a source of activities, influences, and support increases rather dramatically" (p. 277). Oskamp (1991) also included peers as one of the group determinants of attitude formation. Data analysis supports these conclusions. The increasing influence of peers was evident among the high school participants. The findings of this study suggest that students had learned a great deal about how to behave among their peers and which values they were expected to espouse when participating in athletics and physical education class. Studies by Adler, Kless, and Adler (1990),
Eder and Parker (1987), Kessler, Ashenden, Connell, and Dowsett (1985) support this finding.

Nearly all the participants in this study connected sport, popularity, and boys. (The definition of being popular, according to the participants, was "everybody knows who you are.") This finding was similar to those found by Eder and Parker (1987) and Adler et al. (1990). Boys who played and excelled in the traditional male sports were almost guaranteed acceptance by peers.

Popular participants generally were aware of their status among their peers and acknowledged the privileges that their status allowed them. As a male, popularity meant that they were more likely to "get the girls," "have lots of friends," and be put "on a pedestal" by the rest of their peers. Male athletes, particularly at the high school level, reported that they associated only with other athletes. Interestingly, this distinction did not extend to female companions. Girls needed good looks and a good attitude, not sporting prowess. This finding supports those found in Eder and Parker's study on peer-group culture (1987).

Influence of mass media. The participants had learned which sports were popular and appropriate for males and which for females—and at least some of this was learned from the media. Similar results were found in Kane's (1989) study. The words of female participants confirmed the
influence of magazines. They consistently spoke of the "ideal" figure, expressed anxiety about being overweight, and frequently mentioned magazines as a source of their knowledge about diet, appearance, and fitness. Duquin's study (1989) suggested that magazine advertisements support the stereotypes of femininity. Certainly participants reported looking closely at the models in the magazines.

Television appeared more important for male participants and they spoke of watching considerably more sport than did the female participants. Several girls had concluded that women athletes in the less "female appropriate" sports did not exist because they had not see women in these roles on television. Despite such indications that television played a role in attitude development, many of the participants appeared oblivious to the influence of television in their lives. Several reasons might explain this response. First, television may be less influential (at least, with regard to sport and physical activity) than the literature has indicated (Duncan & Hasbrook, 1988; Meehan, 1988; Oskamp, 1991). Certain factors, however, suggest that this is not the case. Most participants spoke of televised "male" sports and male sporting heros and infrequently about "female" sports and female sporting heros, indicating that they did absorb many of the messages transmitted. Second, students frequently indicated that television was watched in conjunction with
doing homework, talking to friends on the phone, or exercising. Perhaps because of the divided attention they were less aware of the messages that they, nonetheless, were receiving and internalizing.

**Comparison With the Behavior Literature**

Some of the student behaviors identified in this study have been previously identified by other researchers (Griffin, 1984, 1985; Portman, 1992; Tousignant, 1981). Unlike the previous studies, however, this inquiry directly connected behavior with identified attitude. The findings suggested that behavior often does indicate attitude. The interview and observation data, however, identified some important exceptions to the rule (e.g., fakers and academy award winners). Students reported, and were observed, modifying their behavior for reasons other than the way they felt about physical education. Their actions corresponded to a conclusion made by Kiesler et al. (1986) who suggested that a high correlation between attitude and behavior will not be found if "situational pressures substantially contribute to the observed behaviors" (p. 29).

In the data presentation section, various situational pressures were described. For instance, students reported the desire to obtain at least a passing grade in physical education. Some, particularly at the junior high school level, stated that they wanted to please their teachers. Others indicated that they were influenced by their peers or
parents. The participants often were under pressure to act in a way contrary to their attitude, thereby supporting Kiesler et al.'s (1986) conclusion. At the least, it is clear that teachers should be cautious in assuming that an accurate assessment of students' attitudes can be made solely by observing their behavior.

Major Factors Which Contribute to Attitude Formation

Several factors were consistently identified across the different contexts as influencing how student attitudes were formed. One of the most powerful findings was the influence of gender. Another substantial finding revolved around the expectations students had of physical education. These expectations, combined with the cultural, societal, and school factors, led many participants (regardless of their attitude) to believe that physical education was not a "real" subject. The last finding to be discussed in this section is the strong influence of teachers on student attitudes.

Gender

I was surprised by the extent to which gender remains a persuasive and powerful factor in the sport and physical education experiences of the adolescents in this study. Many students of both sexes were convinced that athletic talent was innate to males. Boys who were not athletic were the subject of pity and derision. Girls often believed that
they were incapable of becoming competent athletes and their avoidance behaviors guaranteed less practice and therefore little or no improvement. Girls who demonstrated athletic competence were accepted, but treated as the exception rather than the rule.

The societal and cultural factors have a powerful influence on what occurs within the school context. Griffin (1989) acknowledged this influence, "Simply mixing students by gender in physical education cannot begin to change the deeply rooted function sport plays in teaching boys to be men in a male-dominated society" (p. 227). The data from this study suggest that participation in sport was expected for boys, that there was general acceptance that boys were better at sports than girls, and that the benefits of being competent in sporting activities were far greater for males than for females.

Is it possible for individual teachers to make a difference, if the cultural and societal factors are as strong as the data from this study suggest? Before answering this question, a related matter must be addressed. A precursor to the present situation is the extent to which the profession has failed to assist preservice majors and practicing teachers tackle gender-related issues in physical education.

If the problem of gender expectations was merely organizational and structural, Title IX would have gone a
long way to rectify the situation. The data from this study indicate that a far more deeply rooted problem exists. I cringe when I recall behaviors I employed when teaching high school—behaviors which helped reinforce gender stereotypes. Not only was I not taught to tackle the problem, I was not even made aware that the problem existed! Unfortunately, I believe that many teacher education programs continue to ignore this sensitive issue. Teachers continue to graduate with a lack of awareness of the ways in which they promote different gender expectations. In addition, they graduate with very few strategies with which to teach co-educational classes effectively—and with which to tackle an ingrained belief system that designates appropriate behavior for males and females.

We have made token gestures for the teachers currently in the field. Equity workshops have been held (more often attended by women than men), but teachers have been provided with very few ideas and strategies—perhaps because as a profession we are unsure of how to tackle an issue of this magnitude. A beginning would be to include equity issues into every workshop, be it basketball, baseball or gymnastics, rather than segregate discussion of equity away from practical areas. In this way, a higher percentage of teachers would be reached. Equity workshops often are attended by the more politically active and aware teachers which provide them with some strategies to combat gender
discrimination in the workplace. Often when returning to their schools they then face powerful opposition from their own colleagues. We must design methods of reaching more teachers. Title IX ensured that teachers taught co-educational classes, but gave them little idea of how to do this successfully.

If teacher education programs aggressively pursued equity issues and workshops and regardless of the topic actively promoted equitable behaviors, how much difference would this make when the cultural and societal norms are so strong? One teacher in this study who tried to make a difference by using strategies to promote equity between sexes often was considered "weird" by the students of both sexes. Even if effective strategies are devised and taught to preservice majors and teachers, I suspect that the initial reaction from students might deter all but the deeply committed teachers. To some students (mostly males) promoting equity would reduce the fun of physical education and they would be very vocal in making their displeasure felt. Consistency within the department and within the school as a whole would be necessary to produce any major effect—and even then results would be slow in coming.

Can individual teachers alter students' expectations, expectations which often lead them to act in ways which restrict their potential? If teachers are alone, without support from the rest of the department and school, they
will be considerably less effective than working with a department in an united effort. Yet, analysis of the data from the present study suggests that teachers are very influential in helping form student attitudes toward physical education. I believe that individual teachers can make small inroads into this problem, if their contact with the students extends over a period of several years. To expect significant results over a short period of time would result only in disappointment and possibly teacher burn-out.

Analysis also suggests that earlier physical education and sporting experiences contribute to students' expectations of physical education and beliefs about their capabilities. Therefore, I would suggest that to make maximum difference we should concentrate our energies at the elementary school level. Younger children have yet to form strongly held attitudes toward physical education, and still believe that effort and success are directly related. By working at this level, we may begin to reduce the significant discrepancy in skill level and attitude—a discrepancy which was evident in participants in this study.

Physical Education Is Not a "Real" Subject

Interaction with the factors within the three contexts led students to hold certain near universal expectations of physical education. These expectations include the way students viewed (a) physical education as fun, (b) the goals or challenges that existed in physical education, (c)
learning in physical education, and (d) physical education as sport. These four expectations were identified consistently across all the transcript data, regardless of student attitudes, and led students to hold beliefs about the value of physical education as a subject. To many students in this study physical education was not considered a "real" subject. A pattern had evolved (Figure 3, p. 206) and the actions of many of the "players" (students, teachers, parents, administrators and classroom teachers) affected students' beliefs about the value of physical education.

To explain Figure 3, I have selected two students and will illustrate how their expectations of physical education affected their attitude toward class. Ervin (+) thought gym was fun. He seldom felt challenged because he was already a competent athlete and consequently believed he rarely learned anything of value in class. These expectations led him to believe that physical education was not really valuable—-at least not for him. Nevertheless because physical education was closely associated with sport (which Ervin loved), his attitude remained a positive one. In contrast, Judy's attitude was negative. Although physical education at the elementary level was fun for her, this was no longer the case. An accomplished athlete, Judy
Figure 3 Student Expectations of Physical Education
considered that physical education did not challenge her sufficiently. She would have liked to learn more. Although she associated gym with sport, she made the distinction that gym was not "real" sport. She came to a similar conclusion as Ervin (that gym was a "fill-in", and not a "real" subject) but unlike Ervin, these expectations lead her to change her attitude from the positive one she held in her early school experience to a negative one. Explanations for why these expectations have developed and some ameliorative suggestions are discussed below.

**Expectation #1: Physical education as fun.** The teachers in this study stressed the importance of life-long enjoyment of physical activity (recreation). Possibly more than any other teachers, physical educators stress the "fun" angle of their subject. Other classroom teachers begin with the premise that a certain amount of material must be covered and learned by the end of the semester or year.

I believe many physical educators begin with different perspectives toward teaching and learning—for several reasons. First, although many physical education teachers would like students to reach a certain standard in a variety of skills by the end of the unit, semester, or year, administrators and parents rarely hold them accountable. As a result, physical education teachers can demand less from their students and justify this because of the small number of student contact hours. Second, to maintain control of a
class in the gymnasium or outdoor area is very different than keeping order within the four walls of a classroom. Some physical education teachers may consciously or unconsciously be "striking" an unspoken agreement with their students: "If you remain compliant to the demands of dress, attendance and engagement, I will not demand too much of you." Finally, physical educators intuitively may realize the influence they have on students' enjoyment of physical activity. If the participants in this study represent at least some of the student population, teachers have the potential to either "turn students on" to physical activity or the reverse. The emphasis on fun may be the teachers' way of reacting to this responsibility.

Fun, in itself, can provide motivation and goals for individuals in class (Glasser, 1985; Raffini, 1993). Unfortunately, many physical educators have tended to adopt a limited definition of fun, sometimes failing to realize that the process of learning a skill in itself can be enjoyable. Most physical educators have been successful athletes in at least one sport. They know the feeling of accomplishment realized by mastering skills and gaining control of their bodies, yet many deny their students the same joy—in the name of fun.

The student interview data indicated strongly that many students either expected physical education to be fun, or felt that it should be. As a teacher I often responded to
this demand by giving students what they appeared to want, a lot of different activities over a short amount of time. I claimed this would expose them to a wide variety of sports and would avoid boredom. I suspect that my actions are repeated consistently by many physical educators in the field. Research by Griffin, Chandler and Sariscsany (1993) supports this hypothesis.

Expectation #2: Goals or challenges in physical education. As mentioned earlier, physical educators rarely are expected to hold students responsible for learning and this lack of accountability is often reflected in the curriculum. Student evaluation in physical education at the schools in this study was based on participation and changing into appropriate clothes, and only rarely on improvement, mastery of skills, or knowledge of the body. Units lasted four to six weeks. This short time frame usually limits what is taught to basic skills and a few game situations. This lack of accountability often was welcomed by students. Several participants stated that they did not want to be challenged, while others were frustrated because they did want to improve their skill level. Therefore, their different expectations around appropriate challenges and goals could affect their attitude.

Expectation #3: Learning in physical education. Because students had decided that physical education should be fun and knew that they were not often held accountable
for improving in class, they often made the assumption that learning does not take place in the gymnasium. Physical education was a break from academic classes. Most participants associated gym class with the opportunity to play sports, not learn sports.

For instance, many participants indicated that warm-ups, drills, and practice activities were a waste of time. They believed that time spent on these practices would be more profitably spent on game play. Therefore, when teachers interrupted games to offer instruction students often were annoyed and essentially ignored the feedback given. In contrast, some participants (although in the minority) expressed a feeling that they thought physical education should be offered more frequently. A few students (very much in the minority) believed that they were learning in physical education class, although several of these students had difficulty articulating what they had learned.

Expectation #4: Physical education is sport. Students reported that they came to class expecting to play a sport. Physical education, in their minds, consisted of individual activities such as soccer, football, softball, basketball, and a few games. This division encouraged students to think of each sport as a separate entity. In fact, to many participants physical education was sport but not "real" sport. Real sport offered competition, training, effort, challenge and often recognition, while physical education
offered a watered-down version of what could be accomplished in a real sport.

**Physical education as a "real" subject.** These expectations led participants to develop a belief system about the value of physical education. The majority of participants in this study had decided that physical education was not a "real" subject. Among the reasons mentioned for this conclusion were (a) the time allotted for class, (b) the grading procedures, (c) perceived lack of learning, and (d) the close association of physical education with sport and play. A small minority (2 out of the 36 participants) had concluded differently. To them "gym" provided appropriate challenges and goals. They believed at least some learning took place within the confines of the gymnasium and therefore valued physical education as a subject.

Nevertheless, even many of the students who enjoyed physical education a great deal (like Ervin) considered the subject was not really important. Just as students could distinguish between "real" sports and games, the majority of participants in this study had decided that the primary purpose of physical education was to give them a break from the difficult and often unpleasant tasks of academic classes (the real subjects).

Tinning and Fitzclarence (1992) concluded from their study on media images that physical education,
is part of an education system that is expected to be entertaining (perhaps only entertaining) by youth who are raised on a diet of television. It [physical education] was also intimately related to sport which itself is considered entertainment (p. 295).

In physical education, it is relatively easy to design an entertaining program of activities which will satisfy the majority of students—and will keep them busy and cooperative. While I believe that physical education class should be enjoyable, providing such a program sells our subject short and contributes to the expectation that physical education is not valuable.

Influence of Teachers

Most students stated that teachers, peers, and the curriculum were the three most important factors influencing their attitudes toward physical education. Data analysis suggests that teachers often were considered the single most important factor, particularly when the degree of control teachers have over the curriculum is considered.

The expectations students had about physical education affected the expectations they held for their teachers. For example, many students (in a fashion similar to that shown by parents and administrators) did not hold physical educators accountable for teaching. Further, they did not expect teachers to know their subject as well as other classroom teachers knew their subject matter. These expectations negatively affected the status of the physical education teachers in some students' eyes. As a result,
some participants placed great importance on their teachers' coaching record. In contrast, others placed more importance on teachers' personalities. Excellence in the work of instruction, however, was rarely mentioned.

For instance, some students, particularly the less skilled, reported that having a "mean gym teacher" was worse than having insensitive teachers in other classes. Most people who major in physical education are competent athletes. It would be unlikely for any of them to have experienced the continual failure and embarrassment that some of their low skilled students face. While many teachers are sympathetic, they find these students difficult to help, and may feel (sometimes correctly) that their attention and feedback contributes to making the environment even more uncomfortable for these students--so they do nothing.

The low skilled students indicated that they were particularly vulnerable to certain teacher behaviors. Yet, most teacher preparation programs rarely include more than a cursory look at how to help low skilled students. The major goal of teachers in this study was to promote enjoyment of physical activity and they were aware that this goal was not being met in many instances by the low skilled students. Teacher preparation had not provide them with adequate strategies to help these pupils.
Workshops which concentrate entirely on techniques to improve the learning environment for low skilled students might increase the possibility that they would not be alienated by the experiences. Further, attention to techniques specifically designed to assist the less skilled might increase the possibility for successful learning.

While such strategies might offer some hope, there are fundamental problems which can limit the real possibility for improvement. Large classes, each containing students with a wide variety of skill levels are an implacable impediment to any strategy for significant change. Budgets often are insufficient to provide the necessary equipment (trainer balls, modified equipment, and the basics such as one ball per student) restricting teachers' ability to deal with this problem. Administrative support, as well as technical knowledge, is an absolute necessity if there is to be appropriate instruction for all students in physical education.

The high skilled students were more likely to mention the need for teachers to be competent players--and less likely to listen to instructions and feedback if they perceived the teacher was lacking in expertise. Teachers are seldom experts in all the activities they teach, nor do they need to be to conduct valuable lessons for beginning students. Nevertheless, the data from this study suggest that the ability to demonstrate skills effectively was of
particular importance to higher skilled students. Subject matter competence is an important component of effective teaching.

The data suggest that teacher education programs should ensure that their pre-service majors graduate with knowledge and sufficient skill to demonstrate correct techniques in a wide range of popular sports and physical activities. The wide availability of both school sports and out-of-school activities, the advent of health and fitness clubs, and television and magazines specifically marketed for adolescents, has resulted in a more knowledgeable student population—a population ready to criticize if they perceive that teachers lack adequate skill or sufficient knowledge.

Conclusions

Physical education teachers have been through the same socialization process as their students. Therefore, the starting point in breaking the cycle of expectations and attitudes begins with convincing teachers of the importance of their own subject and encouraging them to "think otherwise" about physical education. "Otherwise" means trying to answer the question "What would make physical education real, and therefore valuable, first to me and then to my students?"

The first step would be to help teachers recognize the images they hold of their subject. The second step would be
to define the values of physical education. In defining these values, certain terms would need to be redefined. Fun, for instance, would move from a surface level definition of amusement to a deeper definition which would include challenges and feelings of achievement. These feelings would come not only from an increase in skill level but from the empowerment students gain from being in control of their bodies and from better understanding the way their body parts work.

The redefinition of fun would alter the second expectation concerning goals or challenges. The emphasis would be on the process not the product; not on the actual performance, but the way students are improving. Students would be held responsible for their own learning and improvement. To achieve this, short activity units would be counter-productive. At present, the four or five week units serve several purposes. First, they allow teachers who do not feel comfortable with a particular activity to "wing it." In four weeks (probably totaling a maximum of six hours of activity time), the teacher can introduce the basics of the activity and organize a few games, which is all time allows.

Second, the low skilled students reported that the four week system allowed them to avoid learning. They were aware that within a few weeks they would be moving onto a new unit. Some had decided that they could survive the four
weeks because they would not have to face this activity again until the following year. They believed that it was easier to adopt behaviors which would allow them to avoid participation (giving up, giving way, hanging back, acquiescing and faking). Finally, if certain students disliked the activity the teacher could placate them with the promise that the four weeks soon would be over. Adopting this strategy is often easier than expending the energy to try to convince students of the worth of the unit.

I have stated that this cycle of expectations and attitudes could be interrupted by working with teachers. Although I believe that this is the place to begin, I fear that many teachers would reject certain changes, fearing that these would be detrimental to physical education. Teachers are aware of the expectations the students have of physical education. This awareness is combined with a strong desire to foster enjoyment of physical activity in their students. To many teachers, the thought of increased learning, accountability, longer units, more goals and challenges would produce loud warning bells. Students (who indirectly control much of what happens in physical education class) and teachers have become accustomed to expect much less.

Many scholars in our field have suggested that we think "otherwise" about physical education, and implement substantial changes to the way we think about our subject
(Ennis, 1992; Locke, 1992, Siedentop, 1992). Realism, however, forces me to admit that many teachers will not want to change what they presently have—not because they are bad teachers, but because they fear the impact of these changes on student behavior and attitude toward the subject. Perhaps, as Smith (1993) argued, we should consider following Great Britain in implementing a national curriculum which demands teacher accountability and pupil assessment. Certainly, as a profession we should be monitoring the impact of Britain's decision.

Finally, laying everything in teachers' laps is unfair. We have many dedicated teachers in our profession who are struggling to make a difference in students' lives. Many are working with inadequate equipment, large classes, scheduling problems, and administrators who often unwittingly undermine the status of the subject because they hold expectations, which like those of pupils, are minimal. Carlson, Locke and Parker (1992) found that secondary school teachers often state that one of the most serious problems facing them is inadequate administrative support—and with good reason. Teacher dedication and skill alone will not be enough to make the changes necessary to produce good programs. Locke (1992) in his article of changing secondary school physical education acknowledged the need for adequate funds and support, "The availability of resources is key in any change effort" (p. 367). He qualified that statement
when he stated that, "Unfortunately, just removing some of the most salient barriers, such as lack of planning time, resources, and training opportunities, does not necessarily empower teachers to become full partners in reform" (p. 366).

At present, the dynamic of lowered expectations and negative attitudes continues unabated. In adult life, some former students will remember the enjoyment of gym class, while others will remember the embarrassment. Regardless, as they become parents, members of the school board, teachers, or administrators, if their attitudes remain unchanged, most of them will not remember the benefits of physical education. Their belief that this subject is of little value, other than a break from important academic classes, will continue, and have an impact on factors within the three identified contexts (cultural, societal and school).

To interrupt this cycle would require careful thought and major changes in teachers' and students' expectations and beliefs. Resistance would be substantial because established practices allow both students and teachers to satisfactorily co-exist, with minimal behavioral problems (a teacher priority) and minimal effort (often a student priority). Nevertheless, the students' words have convinced me that substantial changes in the way physical education is taught should be considered, in order to change the
experiences, the expectations, and finally the attitudes students have toward the subject.
APPENDIX A

STUDENT PROFILES
This class consists of upper academic students. Gail described them as having "basically very few behavior problems ... pretty much we tell them what we do and they will do it. We can joke around a lot with them, very easy going, they enjoy being in there." There are 32 students in this class and an equal number of girls and boys. The previous year, most of these students had single physical education classes (as opposed to two classes being taught together). This meant that they received more playing time, a higher amount of individual attention, and had greater access to equipment. In addition, when Gail selects junior high students from their study halls to assist with the elementary classes, she is more likely to select these students. Finally, approximately 90% of the students in this class are on sports teams, or involved in athletic and extra curricula activities. I selected three students to observe and interview in this class. The summary of the questionnaire responses for this class are found in Table 4 (p. 70).

Terese (positive)

Although Terese describes her skill level in sporting activities as average, she states "I love sports and I like to be active and moving." Although a small girl, who suffers from asthma, she receives an outstanding grade for physical education and appears to have a high fitness level. She runs track and is interested in leading a healthy lifestyle. Her teacher, Gail, rated Terese in the equivocal category and mentioned that Terese disliked physical education class last year, although this year she appeared to be enjoying class.

Jerry (equivocal)

Jerry believes "gym is just like for fun ... You go there and if you can you have fun and if you can't you just live with it." He states that the class "has too many drills and that we don't play the game itself enough." Although he enjoys sport, his consuming passion is science and he spends much of his spare time doing experiments. He also plays basketball with his older brother. Jerry, a slight built boy of average height, is rated in the negative category by his teachers, who believe that "he takes it because he has to and his parents expect it." He obtains a satisfactory grade for physical education class. His
fitness level appears to be a little below average for his age.

Tara (negative)

Tara, a slender, frail looking girl, is a special need student. She rates her ability higher than my observations suggest. Her teachers indicate that she has a coordination problem, is lacking in skill, and has no friends in her class. They rate her in the negative attitude category, as does Tara. She mentions being teased by some peers in her class. She receives a satisfactory grade for physical education. Although she runs around the oval with her sister, Tara does not participate in any other sporting activities. Her fitness level appears to be average.

Group JH-B (Brighton Junior High)

This class consists of 34 students, with an equal number of boys and girls. Although described by their teachers as "a good group, nice kids", Gail admits that she is a little stricter with this group than group A. The previous year, most of this group were in a double physical education class (55-65 student per class) and this experience made them a little more difficult to teach effectively. Over the six weeks of observation, I did not see any student unprepared for class and I heard no verbal disagreements with peers or teachers. Four students were selected from this class to participate in the study. The class survey results can be found in Table 5 (p. 70).

Billy Jo (positive)

Billy Jo enjoys physical education because "you get to do a lot of sports that I like." He receives an outstanding grade for physical education and finds it is easy to achieve this grade. He was described by his teachers as having "excellent" attitude toward physical education. Billy Jo, a stocky student of average height, plays street hockey and football. In both the observed units, Billy Jo demonstrated a high skill level, despite his large frame. One of the major reasons that Billy Jo wishes to be fit is that he does not wish to be made fun of. He belongs to the 'popular' crowd "that make fun of other kids."

Karen (positive)

Karen rates physical education positively, although she did not enjoy this subject in elementary school. Her teachers indicated that she had overcome several physical problems and they were delighted that she appeared to enjoy physical education. Karen is a figure skater and works out
to keep in shape for her sport. Although she does not have a petite figure, she does not carry much extra weight. She usually receives an outstanding for physical education and says that to achieve this "you just have to show that you are trying." My observations rated Karen as of average skill and of a reasonable fitness level.

Janet (equivocal)

While her teachers categorized her in the positive category, Janet classified herself as possessing an equivocal attitude towards physical education. She receives an outstanding grade for this subject. Janet plays tennis, is involved in gymnastics, and skis and golfs with her family. She claims that "gym is often sexist" and would like to see separate physical education classes for girls. Although Janet is small in stature, she is highly skilled in gymnastics and showed aggressiveness and reasonable skill in the floor hockey unit. Although her athletic ability is obvious, she has never participated in team sports. She suffers from asthma and some back problems.

Kate (equivocal)

Originally Kate was selected for participation because her survey response were negative. In the interviewing process, however, it became evident that Kate was affected by the activity offered. She did not like gymnastics, the unit in which she was involved and therefore responded to the survey in a negative manner. Her teachers rated her as having an "outstanding" attitude toward the subject and stated that she was "enthusiastic and upbeat." She receives an outstanding grade for physical fitness. Kate is a large girl, with a happy nature. She states "I have always had a positive attitude. I just felt inside that I didn't want to be there." Kate plays intramural floor hockey. In the floor hockey unit, she scored several goals and was one of better players in the class. In gymnastics she was of average ability and could master most basic tasks. For her size, she appears to have a reasonable fitness level.

Group JH-C (Brighton Junior High)

Both teachers agreed that this group was a more difficult class to teach. The class, approximately 40 students, has a high ratio of girls to boys. Moreover, most of the students had double physical education classes the previous year. Gail describes the difference as follows,

We are dealing with a lot more, not really behavior problems, but kids that are bringing a lot more things with them to school--outside home stuff, which is

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showing up in our classes... there is a lot we are
dealing with here and I think that reflects on the
class.

Six student were selected from this class to participate in
the study. A summary of the survey results for this class
can be found in Table 6 (71).

Lisa (positive)

Lisa dislikes school but likes "the extra stuff like
the sports." Her teachers rated her as "an outstanding
athlete, best in the whole school", but then stated that
"you have to work to get her to show her potential." They
placed her in the equivocal category. She receives either
outstanding or satisfactory grades for physical education.
Lisa, who is of average height with a sturdy build, states
"I like gym. I am really into sports and I am really
active." Lisa's ability in both in the gymnastics and floor
hockey unit, was evident. She was not afraid to tackle in
floor hockey and played a very aggressive game. She plays
field hockey for the school.

Marcus (positive)

Marcus was rated positively by all three methods
(survey, observation and teacher ratings). Perhaps because
of his small stature, he tended to blend into class and
become invisible. Marcus enjoys sport and plays football,
baseball, basketball, and golf. Observations indicated
Marcus is physically fit, well coordinated, and skilled in
gymnastics, and floor hockey. He regularly receives an
outstanding for his physical education grade.

Omar (equivocal)

Omar, a tall slim boy, was the only male in this class
who returned a survey indicating an equivocal attitude,
rather than a positive one. He states that "gym is okay."
His teachers rated him in the positive category. Omar is a
talented basketball player and also plays soccer for the
school. He receives an outstanding grade in physical
education. He believes that "it is more important to have
fun in physical education than in other classes." Fitness
is important to Omar. He explains "for a long time I was
out of shape and then I began to play basketball and I got
taller and thinner." For the units observed I rated Omar in
the average skill category.
Ivy (negative)

Ivy describes her attitude as follows: "I do it. I make
the best of it. I don't hate it but I don't really like it." When she comes down to gym she is thinking about "getting
messed up at the beginning of the day." She always wears
long pants because she believes her legs are too thin and
that they change color. Her teachers stated that Ivy has
potential but does not use it. Nevertheless, Ivy frequently
receives an outstanding grade for her physical education
grade. In the past, Ivy ran track and she currently plays
golf. She works out two or three times a week using a
commercial aerobic videotape. Ivy dislikes junior high and
"can't wait to go to high school." Of all the students
interviewed at this level, Ivy appeared the most
sophisticated and her attitude toward school and peers was
more similar to the high school students than her peers.
Her teachers reported that Ivy had "become more social" this
year.

Michelle (negative)

Michelle usually receives a satisfactory grade for
physical education although she thinks "most of the stuff is
stupid" and that "you don't need gym." She describes
herself as "short and fat" and she is self conscious and
doesn't like anyone watching her. Michelle lacks the upper
body strength to do well in most of the activities in the
gymnastics unit. She plays field hockey and therefore felt
more confident in the floor hockey unit. My observations
rated Michelle's ability as below average. Her teachers
placed Michelle in the negative attitude category and
recently sent an unsatisfactory report home to her parents.

Maureen (negative)

Maureen describes herself as a loner. She disliked
physical education at elementary school level. Although she
still does not like it now, she no longer hates it. She
attributes this change to her present physical education
teachers. Although from observation, I believe Maureen has
some potential in physical activity, she believes that she
is "not good at sports." She is also unfit. Her teachers
believe that the only reason Maureen enjoys physical
education is that she liked them. They describe her as "a
fragile girl, who tries very hard." Despite this, they
rated her in the negative category, although she frequently
receives an outstanding grade for physical education class.
Maureen did enjoy the dance unit and she plays basketball by
herself at home.
Group JH-D (Brighton Junior High)

This class, 40 students in all, consists of a mixture of high academic and low academic students and an even number of girls and boys. Although there are some behavior problems in this class, both teachers find this group an easy one with which to relax. I selected five students to be involved in the study from this group. The survey responses for students in this class are presented in Table 7 (p. 71).

Mike (positive)

Mike rates physical education highly because "there are lots of things you get to play, like you do at home." He receives an outstanding grade for class. His teachers describe him as "low skilled but a trier... he works his tail off." Mike is of average height and slightly overweight. He plays a lot of pick-up football and baseball games in his free time. My observations indicate that he is too slow to excel in floor hockey and he lacked the technique in many gymnastic skills. Despite his lack of skill, Mike frequently obtains an outstanding grade for physical education class.

Vanessa (positive)

Vanessa, a slim student of average height, rates her attitude toward physical education as positive because "I love all sports and I like the teachers." In contrast, her teachers place her in the negative category, stating that they thought "she doesn't like PE." At the time of interview Vanessa was on a restricted list which prevented her participating in intramural activities. Until recently, however, she participated in every intramural activity except football. In addition, she plays on a basketball league and participates in volleyball and soccer. I rated her skill level as average to high. Vanessa suffers from asthma but has not allowed this to restrict her activity level.

Alan (equivocal)

In the survey Alan indicated that he had equivocal feelings about physical education. His teachers placed him in the positive category, as did I, although they indicated that he did have some behavioral problems in other classes. Alan is influenced by the activities offered in physical education. His physical education grade ranges from outstanding to satisfactory. He disliked the dance unit but was willing to fake interest in order to receive a passing grade. Alan is an accomplished athlete. He completes in
track and field and plays soccer for the school. In his free time, he plays street hockey and golf. Alan has been overweight and is determined now to stay physically fit and trim.

Alexis (equivocal)

Alexis's attitude toward physical education has improved over the last year. Her teachers indicated that up until this year she "hated physical education" and had written a letter to the school that included the following, "Gym is a waste of tax payers' money. I can go home and do it." Gail indicated that Alexis's attitude had improved. Alexis currently is receiving an outstanding grade for physical education, although until recently, she received a satisfactory rating. Alexis has recently lost weight and was enrolled by her parents, against her wishes in a summer softball camp. She now plays league softball and runs on the school track team. Alexis is determined to stay physically fit because "I don't want to go overweight again."

Lilliana (negative)

Lilliana, a small fragile-looking student, describes her attitude toward physical education. "I don't really like gym that much so I am kind of nervous that I will embarrass myself in front of everyone and everyone will start looking at me." Described as a "quiet, shy girl, who likes the teachers," Gail was unsure of which category to place Lilliana. Originally, Gail placed her in the negative category, and then later moved Lilliana to the positive attitude category. Observations of Lilliana's class show that she is isolated, having no friends in this class. Further, she lacks both the physical strength, fitness level, and the assertiveness and skill to succeed in the activities I observed.

Grade HS-8/9A (Carrum High)

This class was observed participating in a softball unit. Richard, the teacher, finds this class more challenging than many of his other classes. All students rated their attitude toward physical education either as positive or equivocal. There are only two boys (out of a class of 18) and although both filled in the survey, they declined to participate further. Three girls were finally selected as participants. See Table 8 (p. 71) for a breakdown of the questionnaire responses for this class.
Carla (positive): Grade 9

Carla indicated that she had very positive attitudes towards the subject. "Gym is fun" and provides the opportunity to have "fun with your friends and just fool around." Carla was rated by Richard as having a mixed or equivocal attitude toward physical education. He describes her as "not a problem, but as far as overall intensiveness, she is not intense." She usually receives A's for her physical education grade. A slim, tall, and attractive girl, Carla does karate at least twice a week and works out several other nights at a health club. She rates fitness as being very important to her. Carla's skill level in softball, the sport observed, was adequate. She could catch using the glove. Her throwing technique did not allow her to impart much force to the ball. She usually hit the ball when batting.

Jean (equivocal): Grade 9

A small, slender girl, Jean often comes unprepared for class. Her grade for physical education this year ranged from an A to a D. In the past, she has been involved in several sports, (softball, baseball and basketball), but at present, she is not participating in any extra curricular sport. Jean likes physical education most of the time, but much is dependent on the teacher and the activity. Fitness is important to her and she dances in her room for fun and to keep fit. Richard who placed Jean in the equivocal category, believes that being unprepared may be laziness on Jean's part. Her skill level in softball is reasonable. She can catch and throw. Often the timing of her swing in batting will result in her missing the ball.

Rita (equivocal): Grade 9

Rita is described by her teacher as having a "carefree, unpredictable behavior with mood swings from like to dislike in one class". Rita would agree. She stated "I don't hate gym - one day it is okay, but on others it just doesn't work for me." Observations of classes confirm that on several occasions, Rita came unprepared to class. When she did participate, her behavior suggested enjoyment. She averages a B for physical education class, because "sometimes I just don't like the activity so I won't participate as well." Her skill level in the unit observed was average. She does not participate in any organized sport. Fitness is "pretty important" to Rita. She is average height and weight but is not as slim as Carla and Jean. She would like to lose weight.
Grade HS-8/9B (Carrum High)

Richard enjoys teaching this class. He describes it as "just bubbling over with enthusiasm." The class consists of 22 students, and an equal ratio of girls to boys. All students reported positive or equivocal attitudes toward physical education. See Table 9 (p. 72) for a summary of the questionnaire responses. Three students, one male and two female were chosen as participants. The class was observed in a softball unit.

Peter (positive): Grade 9

Peter, the only student of color in this study, was rated by Richard as having a positive attitude toward physical education. Peter confirms this, "I like being wild and doing sports." Observations of the class indicate Peter, a stocky, muscular and physically fit male, has a high skill level in softball. He always gets an A for his physical education grade. He plays football for the high school team and plays a lot of basketball for fun. He appears to be liked by all his classmates and seems very easy going.

Jenny (positive): Grade 9

Jenny likes physical education and was rated as having a positive attitude by her teacher. He describes her as lacking in skill but "bubbly and bouncy and doesn't care if she makes a mistake." My observations placed Jenny in the average to low skilled category. Her main complaint about physical education is the fact that she has to change. She is consistently late to class. Jenny, a small, slim student, runs cross country and is a cheerleader. She receives As and Bs for her physical education grade.

Carmel (positive): Grade 9

Carmel is a small, slim student and she rates physical education around an eight or nine on a ten point scale. She really enjoys physical education once she is out on the field. Because she hates to change, however, she often sits in the locker room debating whether she will participate. Richard described her as self conscious if she makes a mistake in class and rates her attitude as equivocal. Her skill level is not high. She has an immature throwing pattern. Her grades in physical education include As and Bs. Carmel does up to 15 hours of dance a week. This includes ballet, modern, acrobat, jazz, and tap. She also participates in track, and gymnastics, and she dives in summer.
Grade HS-8/9C (Carrum High)

This class consists of many of the lower tracked students. On a typical day, four or five students stand around the field, watching, unprepared. There are twenty students in this class, of which girls number only five. Their teacher, Elena, reported this class as "real tough—the kind of class that has a lot of challenges and wears you down." The class observed was an ultimate frisbee unit. Six students (three males and three females) agreed to be involved in the study. I asked several of the boys who consistently do not participate if they were willing to being involved in the study. Although they agreed, they did not return the informed consent and therefore were ineligible to participate. A summary of the survey responses for this class is found in Table 10 (p. 72).

Mark (positive): Grade 9

Mark is a good athlete, although he does not play on any school team. His fitness level appears to be above average. His teacher placed him in the positive category, although she stated that he "did not have a great level of patience with people who are not competitive." He is tall and fit and puts a great deal of energy into the games of ultimate frisbee. He enjoys physical education as he "likes to get a break and it is a good challenge." He generally receives As for this class. Mark's spare time is spent playing basketball and watching sports.

Ervin (positive): Grade 9

Ervin, tall and thin, but a fit and muscular student, is described by his teacher, Elena, as having "very limited patience for people who don't have the same level of commitment to the game." She rated Ervin in the "positive to middle" attitude category, although she admitted that "he would put himself as positive." He is a talented athlete who plays Junior Varsity basketball and soccer. He aspires to play professional basketball. He is highly competitive and "hates losing more than anything." Ervin describes himself as a popular student and attributes much of this popularity to his sporting prowess. He enjoys physical education, usually gaining As for his grade. He views physical education as an opportunity to play sport.

Jimmy (positive): Grade 9

Jimmy is much smaller in statue that the other male participants in this class. He also was a less aggressive player in ultimate frisbee. Elena describes him as a "good athlete, with a good attitude, a good team player." She
place him in the positive category. He enjoys physical education classes, describing it as a "break in the day." Jimmy appears to be of average to above average fitness and plays Junior Varsity tennis, practicing every day. He also has played basketball and golf. He receives As for physical education class and states "to tell the truth I have never thought of not getting an A in this class."

Joslyn (negative): Grade 8

Joslyn, a short and stocky student, describes physical education class as "boring... the same thing every other day." She indicated that ultimate frisbee was not as bad as some of the other activities offered, although she did not participate for over half the observed classes. Elena rated Joslyn in the mixed to negative category and stated "You really have to work to get her going and once she does she finds success she will kind of stay with it." Observations suggest that Joslyn has the skill to be successful in ultimate frisbee. Her male teammates were more likely to pass to her than other girls in the class. Joslyn usually gets Cs for physical education. In her spare time, she uses a stair master to keep fit and she rides motorcross.

Sara (negative): Grade 8

Sara describes herself as the "most self conscious person there is." Her attitude toward physical education is summed up as "I don't hate gym class. I just dislike it a lot." Sara stated that it is not the activities that cause the negative attitude, "I like the activities... but the teachers and especially the students, they really bother me." Several times after class, I heard Sara state "I hate gym." Despite this negative attitude, Sara obtains As or Bs in this class. Grades are important to her. She once received a C for physical education, which prevented her being on the honor role, and she was extremely upset. She works out on an exercise machine each night and is involved with the school color guard team.

Lydia (negative): Grade 8

Lydia is smaller and more timid than her friend, Sara. Elena stated that she has "not a real high skill level and not a high level of self confidence. I am not sure where her level of self-esteem is." In the category rating session, Elena placed Lydia in the category between equivocal and negative. Lydia confesses that she "doesn't want to get the frisbee because I never catch it." Despite her low skill level and dislike for the subject, Lydia receives As and Bs for physical education. She participates
in most classes. She does ballet, is a member of the color guard, swims and works out on a universal at home. Academically she loves school. Socially, however, school is far less satisfying. She admits that "we (Sara and herself) are the nerds of the class."

**Grade HS-8/9D (Carrum High)**

Elena describes this class as "challenging... there are some strong gender lines.... The females definitely have ability in athletic skills but they are behaving in a way that is passive and very stand-offish, which creates a situation where the boys monopolize play." Observations of the class confirm Elena's statement. The boys, apart from a few exceptions, dominated play, while the girls were far less involved in the game. Several boys from this class agreed to participate, but did not return their informed consent. Finally, six girls were chosen as participants. Table 11 (p. 72) summarizes the details of the questionnaire responses.

**Roxanne (positive): Grade 8**

I asked Roxanne to be involved in this study because although she was of average height and weight, she easily was visible in class. Elena rated Roxanne in the positive category and stated that Roxanne's "skill level is probably average, but in her enthusiasm and motivation, she is out there." Roxanne adds "I love it. I really do". She is highly competitive and "hates losing." She appears have above average fitness, plays field hockey for the school and frequently engages in sport with her older brothers. She receives As for physical education.

**Judy (negative): Grade 9**

Elena described Judy as having "somewhere in her capacity the interest in being active, but I am not sure if it is a cool thing or what it is, but you don't get much out of her in class." She placed Judy in the equivocal to negative category. Judy's grades for physical education range from As to Ds, averaging a C. She doesn't care what grade she gets for "gym" but worries that if she gets an F that "next Fall I won't be able to play a sport." Judy, a slim girl of average height, is a competent athlete. She runs track and competed in the recent State Championships. She also plays soccer for the school. Fitness is extremely important to her. She wants to "stay in shape." Given the option, Judy would take study periods, rather than physical education class. She considers gym "a fill-in class."
Sandra (negative): Grade 9

Sandra, a petite girl, is involved in gymnastics and swimming, and she plans to play soccer next year as well. Her sporting ability was difficult to discern because she did not appear to put much effort into participation. She dislikes physical education and doesn't "like ruining my hair and changing my clothes." Elena rated Sandra in the negative attitude category and stated that she lacked motivation. Sandra likes to be fit and until recently has received As and Bs for physical education.

Tracy (negative): Grade 8

Elena describes Tracy's actions as "She is just sort of 'I don't need this.' She is just going to take very ounce of energy from you that she can to get you to understand that she is not going to do anymore than what she is going to do." Although Tracy, a slim girl of average height, dislikes physical education, she has received As for most units this year. I rated her skill level as high. She enjoys individual rather than team sports and participates in dance (tap and ballet), skiing and golf. Until recently, she was on the school track team.

Monica (negative): Grade 8

Monica usually gets As or Bs for physical education. She enjoys track and does basketball cheerleading. She has never really "loved it (gym)... It wasn't really anything to look forward to... It gets worse as you get older." Elena placed Monica in the negative category and stated that "she hangs with that crowd that is a kind of a cross between not being motivated and trying to be cool and sophisticated." Monica agrees with Elena's rating. She says, "I don't like gym at all... But outside of school [in sports] I think I do better." Monica's sporting ability was difficult to judge because she does not participate with any degree of enthusiasm.

Samantha (negative): Grade 8

When Samantha comes down to physical education class she is thinking "I can't wait until it is going to be over." Samantha has received As for her physical education grade most of the year. Elena described Samantha's ability as "relatively average to above average skill level. She moves around a lot." Samantha concurs. "I don't like standing around for 45 mins so I will try to get involved." She used to like physical education, "That used to be my favorite thing--like from kindergarten to seventh grade, I always waited for gym." Samantha plays field hockey, likes to run
and does gymnastics and dance. Until recently she played softball and soccer. Elena placed Samantha in the equivocal to negative attitude category.
APPENDIX B

CONSENT FORMS
APPENDIX B.1

TEACHER CONSENT FORM

Purpose of the study
My name is Terry Carlson and I am a graduate student in the Department of Professional Preparation in Physical Education at the University of Massachusetts. My research focuses on discovering more about formation of student attitudes toward physical education and the relationship between attitude and behavior in this subject. I would like to identify a middle school/high school where I could observe and videotape eighth/ninth grade classes and select students who have varying attitudes towards physical education for more in-depth study. I would like to interview both students and the teacher. The material gathered in this study will be used in my dissertation, for research presentations, journal articles, and related academic work.

Organization
I would observe and videotape two eighth (ninth) grade classes twice a week for a period of six weeks. I am aware that the intrusion of both a stranger and a videocamera initially may provide some comment among the students, but I will be as unobtrusive as possible and will in no way interfere with the lesson. If possible, the interviews with the students will take place outside of physical education classes. If you agree to participate in this study, I will ask you to: (1) rate the attitude of each student in the designated class(es) into one of three categories: positive, mixed, or negative. This session would be audiotaped, and you will be asked to reasoning aloud why each student is being placed in the particular category; (2) be involved in an hour interview which would cover information about the particular class being observed, the various students in class(es) being observed, and the strategies you employ to maintain or develop a positive attitude towards class; (3) informal discussion between us about attitude, student and teacher behavior, and the class being observed would be recorded and included in the data base.

Anonymity
I will do everything possible to protect your privacy and anonymity. Pseudonyms will be substituted for all participants and the school and school district.

Reciprocity
Once the data has been analyzed, I would be pleased to share the results of my study with you, although specific details obtained from students will not be supplied. I will
be available for consultation/discussion on any matter arising from this study, for an agreed period of time.

**Withdrawal**

While consenting, at this time, to participate in this study, you may withdraw at any time during the project. Transcripts of the audiotaped rating session, the audiotaped interview, and the informal discussions will be given to you to check for accuracy. You have the right to withdraw any specific extracts of transcripts that you wish to be excluded from the data base within two weeks of the completion of data collection at your school.

**Agreement**

In signing this form, you agree to the use of the materials and observations as indicated above. If I desire to use the materials from the study in any other way not consistent with what is stated above, I will contact you to obtain additional written consent.

In signing this form, you also are assuring me that you will make no financial claims on me for the use of the material in this study.

I will be pleased to answer any questions you have concerning the study. Please call me at home (413) 549-1120 or at the University of Massachusetts (413) 545-2323. The chair of my committee, Professor Judy Placek also is available to answer questions and can be reached at (413) 545-0541.

Ms Terry Carlson
Doctoral Candidate

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I have read and understand the preceding information. In signing this document, I agree to participate in the physical education study.

________________________  __________________
Signature of Teacher        Date
APPENDIX B.2

PARENTAL CONSENT FORM #1

To: Parents or guardian of students in_____________________

My name is Terry Carlson and I am a graduate student in the Department of Professional Preparation in Physical Education at the University of Massachusetts. I am currently conducting research about physical education at __________________ school, and I am interested in observing students in physical education and talking to a selected group of students about their experiences in class.

The school and district have approved this research and your child has volunteered to be involved. I will be in the school for a six week period and in that time, I wish to observe your child’s class and videotape some lessons. Your child would be involved in completing a short survey (maximum of 10 minutes to complete), asking how they feel about physical education. This survey is for my own use and no teacher will have access to the information given.

From my observations and the survey results I will be asking a few students in class if they wish to become more involved in this study by being interviewed. If your child is interested in becoming more involved, I will send you further information about what this would entail and ask you for your permission.

The names of the school district, school, and participants will not be used in any report. Any information given by participants will not individually identify them in any way and I will, at no time, discuss anything your child has said with their physical education teacher or with any other person at the school.

I would appreciate you signing the accompanying form and have your child return it to their physical education teacher. Participation in this study is voluntary, and your child may withdraw from the study at any stage.

I will be pleased to answer any questions you have concerning the study. Please call me at home (413) 549-1120 or at the University of Massachusetts (413) 545-2323. The chair of my committee, Professor Judy Placek also is available to answer questions and can be reached at (413) 545-0541.

Sincerely

Ms Terry Carlson
Doctoral Candidate
Chairperson

Dr. Judith H. Placek
Dissertation Committee

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I have read and understand the preceding information on the physical education study. I give / do not give (please circle appropriate response) permission for my child to participate in the physical education study.

Name of son/daughter _______________________

________________________________________  ___________
Signature of Parent/Guardian            Date
APPENDIX B.3

PARENTAL CONSENT FORM #2

To: Parents or guardian of __________________________

Approximately two weeks ago, I sent a letter home asking if you would allow your child to be involved in a physical education study. You agreed and your child has completed a survey and his/her class has been observed and videotaped.

I asked your child if his/she would be interested in being further involved in this study and he/she has indicated that he/she would like to do so. Therefore, I am requesting your permission to hold two 45 minute group interviews and one individual interview with your child during school hours. The group interviews would involve your child and two other students, with me as interviewer. The individual interview will be with me. If your child is agreeable he/she also may be involved in compiling a journal for a period of three weeks.

As mentioned in my last letter home, the school and district have approved this research. The names of the school district, school, and participants will not be used in any report. Any information given by participants will not individually identify them in any way and I will, at no time, discuss anything your child has said with their physical education teacher or with any other person at the school. In no way will participation or non-participation affect your child's grades in physical education.

I would appreciate you signing the accompanying form and have your child return it to their physical education teacher.

Participation in this study is voluntary, and your child may withdraw from the study at any stage.

I will be pleased to answer any questions you have concerning the study. Please call me at home (413) 549-1120 or at the University of Massachusetts (413) 545-2323. The chair of my committee, Professor Judy Placek also is available to answer questions and can be reached at (413) 545-0541.

Sincerely

Ms Terry Carlson
Doctoral Candidate
Chairperson

Dr. Judith H. Placek
Dissertation Committee

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I have read and understand the preceding information on the physical education study. I give / do not give (please circle appropriate response) permission for my child to participate in the physical education study in more depth.

Name of son/daughter ____________________________

______________________________________________  ______
Signature of Parent/Guardian                  Date
APPENDIX B.4

STUDENT CONSENT FORM #1

My name is Terry Carlson and I am a graduate student at the University of Massachusetts. I am doing a study which looks at how students feel about physical education and what caused them to feel that way. I would like to observe and video tape your physical education classes, and ask you to fill in a quick four question survey. Your teachers, the school, and district have given me permission to talk to you.

In a few weeks I will ask some students in the class for interviews. If I would like you to be involved I will talk to you separately and explain what being in this part of the study would involved. For the moment, I would like to get your permission and the permission of your parents for you to do the survey and to check that you do not mind me observing and videotaping your class.

Participation in this study is voluntary, and you can decide not to be involved in this study at any stage. Whether you agree to be a part of my study or not, your grade in gym will not be affected.

If you agree to help me with my study please sign in the space marked "student signature". By signing this, you will indicate that you understand what I am asking and that you wish to participate in the study.

I will be pleased to answer any questions you have about the study. You can talk to me before and after physical education class if you want more information.

Sincerely

Ms Terry Carlson

I have read and I understand the information about the study. I agree to be involved in the physical education study.

Student name (print)

______________________________  __________________________
Student signature  Date
My name is Terry Carlson and I am a graduate student at the University of Massachusetts. You have already filled out a survey for me and you have seen me observing your gym classes. I am interested in talking to students about their experiences in physical education class. Your teachers, the school, and district have given me permission to talk to you, if that is okay with you.

If you agree to be in this study, you would have three interviews: two would be group interviews with two other students from your class, and one would be just with me. The interviews would be done during study periods, lunch, or any other times the school will let me use. Your name, the name of your teachers, the school, and school district will not be used in any report. Any information you give to me will not be discussed with your physical education teacher or with any other person at the school. I also would ask you if you wish to keep a physical education journal for a three week period.

Participation in this study is voluntary, and you can decide not to be involved in this study at any stage. Whether you agree to be a part of my study or not, your grade in gym will not be affected.

If you agree to help me with my study please sign in the space marked "student signature". By signing this, you will indicate that you understand what I am asking and that you wish to participate in the study. I will be pleased to answer any questions you have about the study. You can talk to me before and after physical education class if you want more information.

Sincerely

Ms Terry Carlson

I have read and I understand the information about the study. I agree to be interviewed for the physical education study.

Student name (print)

__________________________________________  ______________________
Student signature Date
APPENDIX C.1

TEACHER INTERVIEW GUIDE

1. Background information about teaching experience, length of time in school, feelings about teaching and school in general.

2. What do you want students in your physical education class to leave with? Do you have personal goals of what you want the students to achieve in your class?

3. Fill in details about the program.

4. What types of attitudes do you see in the gym? Could you describe what a student looks like and would do if they have a positive/mixed/negative attitude? Did the fact that I asked you to categorize students into these three sections, affect the way you viewed the students? If so, in what way?

5. Do various student attitudes affect how and what you teach? Explain. If possible use observed class(es) to illustrate your points.

6. I have been observing this class for five weeks now and see certain dynamics between students and between the students and you as the teacher being played out. Can you supply me with some background information about this class and any details you could share about student experiences which may assist me to better understand their attitude toward physical education.

7. What strategies do you employ to maintain or develop positive student attitudes toward class?
In the original study design, students were to be grouped according to the physical education class they attend for the first interview. Although, this was possible at the high school level, at the junior high school the timetable often made this impractical. Further, I realized that, at times it was also undesirable to group the students heterogeneously by attitude. Including a confident athletic student who enjoyed physical education in the same group as a timid, self conscious student who disliked the subject might result in shutting down the communication system of one of the participants. I believed it was essential to compile compatible groups in order that the most benefit could be gained from each interview. To increase the comfort level of the student I sometimes asked participants to select the students with whom they would feel most comfortable. To accommodate this I sometimes included students that I had not originally selected to be participants, thereby increasing the number in the study. Often I judged that single sex interviews would allow more exchange between participants. At the junior high school level, I also provided popcorn and juice for the group interviews. This helped students to relax and enjoy the sessions. At the high school, facilities and circumstances prevented this occurring.

The first group interview took place in the third week of the study. The intent of this interview was to (a) establish rapport with the students, (b) gain some background information about the students' and families' activity patterns, (c) share previous experiences in physical education and sport, and (d) encourage the students to think about aspects of the physical education class by describing class to an outsider.

Interview guide:

1. Introduction

2. I would like to read the questions I am going to ask and as I read them you may want to jot down a few ideas or words on the sheet I have given you. Put down anything that will remind you of what you want to share with the group. Remember that although a lot of the information you give me will eventually be returned to the teachers in the form of suggestions of what students do and do not like about class, no individual information will be given to them.
A. Rate both physical education and school on a 1 to 10 scale with 1 being really awful and 10 being fantastic. Then I will ask you to talk a little about why you rated them as you did.

B. What sorts of activities do you like to do after school hours? What do you do with your friends after school and weekends?

C. Tell me a little about the activities your family likes to do (TV, sports, reading, cooking etc.).

D. Tell me what you can remember about elementary school physical education and sport. How far can you remember back in grades? Who taught you? What did you like/dislike?

E. Can you remember what you thought gym would be like in junior high, when you were still in elementary school? Tell me about those thoughts.

F. If a new student was coming into the school and asked you to describe what gym is like, tell her/him all about it, starting from when you leave the last class before gym until you enter the next classroom after gym.

G. Is it cool to be involved in sports? Why or why not? What about participating in physical education? How is this the same or different?

In the next interview I will be asking you to think more about what you like or dislike about gym. I would like you to think about what caused you to think in this way.

Also it would be very helpful if you would be willing to keep a journal for three weeks about gym class. I have journals which I will provide to help you. You could find a few minutes either during or after school to jot down a few notes.
Sample sheet given to students

1. Circle how you feel about school on the scale.

   Awful                              Fantastic
   School  1  2  3  4  5  6  7  8  9  10
   Why?

2. Circle how you feel about gym on the scale.

   Awful                              Fantastic
   Gym  1  2  3  4  5  6  7  8  9  10
   Why?

3. List things you enjoy doing after school or on weekends or vacations

4. List things your family like to do

5. Elementary School Gym:
   a. How far back can you remember?
   b. Who taught you?
   c. What did you like/dislike

6. What would you tell a new student about gym?
APPENDIX C.3
STUDENT GROUP INTERVIEW 2

Except for absences or timetabling difficulties, students remained in the same groups for the second interview. The one format change from this interview to the first was that the interview guide was used less because of the time constraints (35 minutes). I discovered in the first interview sessions that students were slow when asked to write down their answers. Although they were asked to jot down key words, not one student in the first interview actually did that. They all wrote in full sentences. Reluctantly, because of the tight time schedule, in this second group interview, I used the interview sheet only as a guide for both of us, rather than the way it was used in the first interview.

Interview Guideline:

I again briefly outlined the questions that we will cover in this interview. You have the guideline sheet and you can follow them, and make mental notes about the ideas, feelings, and experiences that come to mind as we go through the questions.

A. Is there anything that you have thought about since our last interview that you would like to share?

B. Where did you learn about being physically active? What do you learn about physical activity from shows and commercials do you see on television? What magazines do you read and what sports and activities do they write about? Do you have any favorite sports stars and who are they? Does reading about these people encourage you to be physical active? Do you have any sports heros? Tell me about them.

C. What was it like coming from elementary to junior high (or junior high to high school). What was the new physical education program like?

D. What do your parents and siblings think about gym? What do your friends say about gym? What do you think other teachers and school administrators think about gym?

E. I asked you at the last interview to think about the things that help you to like or dislike gym class. I would like to explore this further. What things help you to like physical education? Now tell me about anything you do not like about the class.
F. You may have some examples of experiences that have happened to you which will help explain your attitude toward gym. Select one or two of these experiences to share with the rest of the group.

G. I would like you to think about the ideal physical education teacher. What quality do you believe help make an excellent gym teacher? Now what qualities would you not like to see in your physical education teachers?

H. What would an ideal gym program look like? Do not only include the activities that you would like to see in the ideal program but other aspects which would contribute to gym being the ideal class. If you could make any changes you like to gym what would these be?

Arrange for the rest of the individual interviews.

Sample sheet given to students

1. Things I remember since last time

2. TV shows/Magazines/Books

3. Memories of what I thought PE would be like in middle school/high school


5a. Things that help me like gym

5b. Things that help me dislike gym

6. List experiences/memories of things that explain why you feel the way you do about gym

7. Ideal Physical Education Teacher

8. Ideal Gym Program Changes
APPENDIX C.4

STIMULATED RECALL SESSION AND INDIVIDUAL INTERVIEW GUIDE

This session consisted of two parts. The major emphasis of the interview was on attitude toward physical education and class behavior. The first section involved: (a) watching excerpts of videotaped lessons which involve the participant, (b) asking if they could describe that incident, (c) discussing what they were thinking about during incident, and (d) discussing why they behaved in the manner that they did.

The second section was a discussion of other details I wished to follow up on from observations or group interviews and the participant may have questions or added information to share. I included questions about physical characteristics which were not included in the group focus interviews. In this interview, I asked more about the student's family background.

Most of these interviews were done as individual interviews. Because of scheduling issues, however, occasionally it was practical to interview two students concurrently. Some of these sessions were actually more productive because the students could laugh together at their performance and this reduced their self consciousness. I only conducted duel stimulated recall sessions when I was sure that the two participants felt comfortable with each other.

Sample questions for the floor hockey unit.

1. What are you thinking about when you are coming down to gym?

2. Tell me about the stretches? Do you ever cheat, why? Do others? Is it okay to miss exercises? Do you do these exercises at other times outside gym? How useful is this set of stretching exercises?

3. How do you find the jogging? What do you think about as you jog?

4. Tell me about the students in your class. Are there certain groups of student that hang out together? If you had to describe your class as a personality, what would you say about it (Is it happy, sad, selfish etc)? Is being good at sports important to being popular and why or why not? Does this differ for boys and girls?

5. Formation of teams. What do you think about how these are formed?
6. Game: Is being tackled by a boy(girl) the same as being tackled by a girl(boy). Why or why not? How would you rate your skill in this game? What are you thinking about in this part here? Have you ever been selected goalie. How did that feel? How important is it to have fun in gym? How does that compare to the importance of having fun in other subjects?

7. Teachers: Could you describe the differences between Ms G and Coach? Demonstration from coach? What do you learn from these feedback sessions? What is it like to play with the teachers? How do the other students feel about this? When Coach, Ms Gail call out something to you, how do you feel?

8. How important is winning in gym?

9. What are you thinking about when you move from gym to another class?

Other questions:

a. Fitness - is it important to you and where do you get your information about fitness?

b. Are there different expectation for boys and girls in gym and if yes, what are they?

c. Uniforms

d. Changing in locker room

e. What grade do you usually get for physical education? How are you graded and is it easy to get a good grade in pe?

f. Is watching the video tape useful in stimulating your memory of the game?

g. How has my video-taping in your class affected your feeling and actions in class?
APPENDIX D

PHYSICAL EDUCATION SURVEY

I am trying to find out what students your age think about gym. I am surveying and talking to students who have differing feelings towards gym. If you would like to help me learn more about what students like or dislike about physical education, fill in this brief survey.

Later on I may ask you if you would be willing to talk to me about your experiences in gym. The reason that I have asked you to put your name on this survey is so that I can identify you for possible interviews. For the same reason, I am asking you to put down your teacher's name and the class time. No physical education teacher or any other person connected with this school will see your completed survey.

DIRECTIONS: CIRCLE THE ANSWER THAT BEST FITS HOW YOU FEEL.

1. a. I like gym
   b. I think gym is okay some of the time
   c. I dislike gym

2. a. I like the activities taught in gym
   b. I think that some of the activities taught in gym are okay
   c. I do not like most of the activities taught in gym

3. a. I like the gym teacher(s)
   b. I like the gym teacher(s) some of the time
   c. I dislike the gym teachers(s)
4. DIRECTIONS: READ ALL THREE OF THE PARAGRAPHS BELOW (A, B & C) AND THEN GO BACK AND CIRCLE THE LETTER OF THE PARAGRAPH THAT BEST DESCRIBES YOU:

4a. I look forward to coming to gym and I participate nearly all the time. I enjoy nearly all classes and feel good during gym class. If I had a choice of whether to take gym or not, I would certainly choose to take gym.

4b. Gym is not my favorite subject, but it is okay, I suppose. Sometimes I enjoy gym class and other times I dislike it. If gym was an elective, I might choose to take it. It would depend on what other subjects I could take instead.

4c. I don't like coming to gym very much. I would rather be somewhere else. Gym may be good for other people but I don't think it is of much benefit to me. If I could choose not to take gym, I would not take it.
APPENDIX E

STUDENT SELECTION PROCESS

1. Student informed consent #1 signed.
2. Parental consent form #1 signed.
3. Students (who fulfilled steps 1 and 2) completed attitude survey.
4. Surveys sorted into three attitude categories: positive, equivocal and negative.
5. Categories sorted according to sex.
6. Observations of classes.
7. Teacher ratings of student attitudes.
8. Practical considerations such as students' study periods checked.
9. Behavior of students in physical education class compared with observations and teacher ratings.
10. Selection of a pool of possible participants.
11. Rationale for including each student discussed with peer debriefer and committee member.
12. Twenty-four students from each school asked to participate and given parental consent form #2 and student inform consent #2.
13. Eighteen students from each school who returned necessary forms were selected to be participants in study.
APPENDIX F

DESCRIPTION OF STUDENT PARTICIPANTS

<table>
<thead>
<tr>
<th>NAME*</th>
<th>ATTITUDE</th>
<th>SEX</th>
<th>SCHOOL/GRADE</th>
<th>SKILL LEVEL **</th>
<th>TEACHER</th>
<th>PE GRADE ***</th>
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<tr>
<td>Carla</td>
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Description of student participants continued.

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</table>

* Pseudonym

** Skill level in units observed

*** PE grade is an average, and may not reflect the grade given for the unit(s) observed.
O represents outstanding, and S satisfactory

# The two students whose skills were rated unknown did not participate in class with any enthusiasm and as a result, I was unsure of their skill level.
APPENDIX G

STUDENT JOURNAL GUIDE

Thank you for agreeing to be a part of this research about physical education. Your work in this journal will help teachers understand what students like and dislike about physical education and why. The questions that I have set for you each session are to help you. You can add anything that you think is important and leave out anything that is not important to you.

This journal will be kept for a total of three to four weeks and will eventually have 6-9 entries in it. If you can make an entry within 6 hours of each gym class, you will remember more about the class.

Thank you again for being part of this research project.

---

Date of class: ______ Time of class: ______

Teacher: ____________________________

Activity: ____________________________

In physical education class

today was a 1 2 3 4 5 6 7 8 9 10 day

  Lousy  so-so  Great

It was a ______ (record the number from above) day because

(Write or talk about the reasons class was fun, not so much fun, or not fun at all and explain.)

---

Date of class: ______ Time of class: ______

Teacher: ____________________________

Activity: ____________________________

In physical education class

today was a 1 2 3 4 5 6 7 8 9 10 day

  Lousy  so-so  Great

The thing(s) I like best about physical education are:

The things I like least about physical education are:
Date of class: _______ Time of class: ______
Teacher: _______________________
Activity: _______________________

In physical education class
today was a 1 2 3 4 5 6 7 8 9 10 day
Lousy    so-so    Great

The things I remember most about the warm-up activity are:
I think we do warm-ups because:
I like / dislike (circle appropriate response) warm-ups because:

Date of class: _______ Time of class: ______
Teacher: _______________________
Activity: _______________________

In physical education class
today was a 1 2 3 4 5 6 7 8 9 10 day
Lousy    so-so    Great

What I remember most about the drills are:
I remember this because...

Date of class: _______ Time of class: ______
Teacher: _______________________
Activity: _______________________

In physical education class
today was a 1 2 3 4 5 6 7 8 9 10 day
Lousy    so-so    Great

Today I can remember my teacher did .... (Write or talk about anything the teacher did in class that either helped you or did not help you to enjoy class).
Date of class: _____ Time of class: _____
Teacher: __________________________
Activity: __________________________
In physical education class today was a 1 2 3 4 5 6 7 8 9 10 day
Lousy     so-so     Great

Today I can remember my classmates .... (Write or talk about anything that your classmates did in class that either helped you or did not help you to enjoy class.)

Date of class: _____ Time of class: _____
Teacher: __________________________
Activity: __________________________
In physical education class today was a 1 2 3 4 5 6 7 8 9 10 day
Lousy     so-so     Great

If I could change physical education class, this is what I would do:

This would make things better because:

Date of class: _____ Time of class: _____
Teacher: __________________________
Activity: __________________________
In physical education class today was a 1 2 3 4 5 6 7 8 9 10 day
Lousy     so-so     Great

The activities that I like to do in physical education most are:

I like these activities because...

The activities that I dislike most in physical education are:

I dislike these activities because ...
APPENDIX H

PILOT STUDY

Certain aspects of this study needed to be piloted before the final study. I focused on three main areas. First, it was essential that the technical aspects were piloted (e.g., videotaping). Second, there were research skills which I needed to develop further. Finally, some indication of student and teacher reaction to what I would require of them was necessary (e.g., journal entries, survey, stimulated recall sessions and teachers' rating of student attitudes).

Technical Aspects

Six classes were videotaped. Videotapes were taken from different angles. The results helped indicated the best position for the camera in order to obtain maximum coverage of events in the gymnasium and ensure safety for both the camera, the operator and the participants in the class. Further, the test provided me with information about what I could hear of the teacher's instructions and feedback and the conversation between students. I discovered, depending on the game being played and the position of the camera, that the videotape usually picked up most of the teachers' instructions and some of the students' louder conversations. These tests also indicated that the picture was large enough for students to identify what was taking place during class (and therefore was of some value during the stimulated recall sessions) and that the sound did not seem to be an important factor to students. Segments of the videotaped class were extracted and three stimulated recall sessions with student were piloted.

Development of Research Skills

Because previous research had involved a great deal of interviewing, I believed my skills in this technique had been developed sufficiently. I had not, however, been involved in the months prior to this study, in taking field notes. My observational skills needed to be developed further and I felt that a pilot study would fulfill that need. In addition to increasing my skills, several sessions of taking field notes suggested areas on which to concentrate and assisted me to narrow my focus towards relevant stimuli. I concentrated on the behavior of student participants, their interactions with the teacher and peers, and their skill level in this particular activity.

Field notes were taken for two classes. They were expanded, edited, and typed and submitted to two trained researchers for review. Their feedback assisted me to focus
on relevant information about the class, the teacher, and the student participants. I then observed several more classes in which I, once again, took extensive field notes. These notes were reviewed once more by the same researchers and the results again were reviewed. During these field note sessions, I found that in order to keep focused on the individual student for the required amount of time, it was useful to use a walkman with a tape which was designed specifically for the purpose of alerting me as to when to observe the next student. The tape was divided into one or two minute segments.

Using stimulated recall with students has been done infrequently. I had not conducted sessions of this kind. Therefore, it was essential that this technique was piloted. I used segments of the videotaped classes and conducted two stimulated recall sessions. The transcripts of these audiotaped sessions were reviewed by two experienced researchers and the contents discussed. I then conducted one more session in order to put into practice suggestions by the researchers. A great deal was learned from these sessions. I found that my questions were far too broad and abstract and that students at this age found them difficult to understand and answer. Further, after the first two sessions, I altered my technique and allowed the tape to run almost constantly. This meant that the students saw most of the class and could comment and select segments of the class that were important to them and not to me as a researcher. This pilot resulted in considerable change to my interview script for stimulated recall sessions. The pilot study gave some indication of the effectiveness of this method, as well as increased my skill as a facilitator in this session and expanded my ability to extract relevant videotaped segments for use in sessions.

Student and Teacher Reactions

Students

Past experience with students and research had indicated that many students are interested and willing to participate in research studies. They enjoy the relief of an unusual occurrence in what is usually a very predictable environment. The chance to miss an occasional class, and the novelty of being taken seriously and having the complete and undivided attention of an adult is a uncommon event in most children's lives. Up until now, however, I have not asked them to do anything that required "homework." The keeping of journals could overstep the boundary of what is "good fun" and move into the category "boring." Emphasizing the importance of this information to the study and allowing a variety of methods to be used to complete the task, I
thought might increase my chances of success. Until this method was tried I was unsure if students would be willing to participate and of what value these diaries would be.

I asked six students to participate in a two week journal keeping exercise. I offered them the choice of using an audiotape or an written journal. I thought that the number of those who participated and the quality of these journals would provide some guidance as to the effectiveness of this method. I was correct. I received only one journal, one half page of large writing. This lack of success left me with two options—to eliminate the journal segment of the study or radically change the journal. I did the latter, making the questions much more specific and easier to fill in. Further, I used astro-brite paper. This brightly colored journal was much more difficult to lose and ignore.

Stimulated recall sessions require students to recall what was occurring in taped class and explain what was happening and what emotions were felt at that time and why. As this technique has not been piloted I was unsure of the ability of eighth and ninth grade students to reflect on their behavior and feelings in specific physical education classes, or their comfort level of doing this with a unknown adult. This pilot provided me with feedback about student ability and willingness to recall past experiences, as well as their reactions to the session. I found that a great deal of the students' ability to reflect depended on the individual student and my questions and technique as an interviewer. Finally, I was unsure of what order to conduct the session, to either show the tape first and then continue with the interview, or the reverse. I found from these trials that showing the tape first seemed to most appropriate, for both the student and the interviewer.

A further concern as I began videotaping classes was the influence of an observer and a camera in the gymnasium. I was uncertain as to the change, if any, in student behavior that would result. The participants in the pilot study calmed my fears by stating that they forgot about the camera once the game began.

In all aspects of the pilot study, students were asked to provide input and feedback about the techniques being used and my skills as the researcher. Suggestions made by these students were taken very seriously.

Teachers

I was unsure of how teachers would react to the request that they rate student attitudes toward physical education by physically placing the student's card in one of three piles, and talking aloud about this process. I wondered about their ability or willingness to do so. I asked two different teachers to perform this task. I found that they
had no difficulty completing the assignment, although one teacher asked to be able to create a fourth category. I allowed him to do so and later found that each of my four teacher participants made the same request. I was alerted to one potential problem of using this method from the feedback of one teacher. He commented that after he had divided the students into groups, he looked at those students in the negative category with new eyes. He began to brainstorm new ways of trying to reach them. Therefore, I was alerted to the possibility of teachers changing their behavior as a result of this exercise. Because of this feedback, I added a question to the teacher interview concerning the effects of the student rating on the teacher, and made sure that all my teacher interviews were conducted in the last week of the study.
APPENDIX I

RETURN OF PARENTAL CONSENT FORMS

The pilot study I conducted prior to this investigation indicated that one of the major problems with which I would have to deal was the return of the parental consent forms. The adolescents consistently forgot or ignored their forms. I believed that this response could be changed if the students were given an incentive to return their consent forms.

Therefore, to improve the return rate I held a "raffle" for each class. The prize was a University Basketball T-shirt. The students were given the following instructions:

1. If the parental consent form is returned the day following this discussion, your name will be entered in the raffle four times.

2. If you return the form on the second day, you will have three chances in the raffle draw.

3. If the form is returned on the third day, you will have two chances in the raffle draw.

4. Provided the form is returned within a week, you will have a chance to win the T-shirt.

I believe that the response rate of the students would have been considerably lower if I had not used a method such as this to stimulate the interest of the students.
APPENDIX J

TIMELINE OF STUDY

The following shows the actual timeline for the study. I found that I was usually optimistic about completion dates. I discovered that everything was more complicated than it seemed and always took longer than planned.

January 1993

(a) Committee meeting where dissertation proposal is discussed
(b) Pilot methodology

February 1993

(a) Proposal to Human Subjects Review Committee
(b) Form 7 to School of Education
(c) Contacts with prospective schools for dissertation research established and sites visited.
(d) Piloting continued
(e) Sites established
(f) Meetings with teachers and administrators

March 1993

(a) Observing and videotaping of classes at first site (Junior High School)
(b) Teachers' rating of student attitudes (Junior High)
(c) Student surveys (Junior High)
(d) Student participants chosen
(e) First group focus interview
(f) Informal discussion with teachers and students
(g) Student journals begin and continue for three weeks (Junior High)
(g) Some preliminary themes and categories developed

April 1993

Two weeks of this month were unavailable for research as one week was the school vacation and another involved a conference which I attended.

(a) Second group interview (Junior High)
(a) Stimulated recall sessions (Junior High)
(c) Formal teacher interviews (Junior High)
(d) School B contacted and arrangements made for research to begin
May 1993
(a) Journals completed (Junior High)
(b) Observations at High School begin
(c) Student survey (High School)
(d) Student participants chosen
(e) Preliminary analysis
(f) Teacher rating of student attitude (High School)
(g) First group focus interview (High School)
(h) Informal discussion with teachers and students (High School)
(i) Stimulated recall sessions begin (High School)

June 1993
(a) Second group focus interview (High School)
(a) Final stimulated recall interviews with students (High School)
(b) Formal teacher interviews (High School)
(b) Analysis continued

July - September
(a) Analysis of data
(b) Some preliminary writing of sections of dissertation

September - October
(a) Analysis of data continued
(b) Model from data designed
(c) Writing of dissertation

November - December
(a) Editing of manuscript
(b) Oral Defense
APPENDIX K
CLASSIFICATION OF CODING USED FOR ETHNOGRAPH

Category 1: Overall Attitude toward PE - Code: OA-PE

- Positive attitude toward PE: OA PE+
- Negative attitude toward PE: OA PE−
- Equivocal attitude toward PE: OA PE0

Category 2: Physiological and genetic - Code: P/G

Sub categories: Abbreviation for coding
a) age P/G age
b) sex P/G sex
c) body type P/G b.ty
d) coordination P/G coor
e) agility P/G agil
f) appearance P/G appear
g) ailments P/G ail
(eg asthma)

Category 3: Direct Personal experiences - Code: DPE

Sub categories: Abbreviations
a) competitive (int and extrinsic) DPE comp
b) status of PE DPE st pe
c) status of sport DPE st sp
d) value of PE DPE val pe
e) value of sport DPE val sp
f) teachers behaviors/personality DPE tb
   pos/neg DPE tb+/DPE tb−
g) teachers' expectations
   for male or females DPE tb ex
h) skill level DPE skill
i) success in sport DPE spcuss
j) success in PE DPE pecuss
k) previous experience in sport DPE prev
k) self esteem/ego DPE s.e
m) gender
   reaction/expectations for boys DPE boy
   (from peers) pos DPE boy+
   neg DPE boy−
   reaction/expectation for girls DPE gl
   (from peers) pos DPE gl+
   neg DPE gl−
n) curriculum DPE curr
### Category 3: Direct Personal experiences - Code: DPE cont.

#### Sub categories:

**o) Activities**  
- pos  
- neg  

- Challenge  
- Repetition

**p) Fitness - importance of**  
- Assumptions about

**q) exercise pattern**  
**r) changing for class**

#### Abbreviations

- DPE act  
- DPE act+  
- DPE act-  
- DPE act-ch  
- DPE act-rep  
- DPE fit  
- DPE fit-as  
- DPE ex  
- DPE chan

### Category 4: Family Influences - Code: Fam

#### Sub categories

- Exercise pattern of mother  
- Exercise pattern of father  
- Exercise pattern of siblings  
- Exercise pattern of relatives  
- Support of mother (for activity)  
- Support of father (for activity)  
- Support of parents (for activity)  
- Support of mother (for PE)  
- Support of father (for PE)  
- Support of parents (for PE)  
- Support of siblings (for activity)  
- Support of siblings (for PE)  
- Socio-economic status of parents

#### Abbreviations

- Fam ex m  
- Fam ex d  
- Fam ex s  
- Fam ex rel  
- Fam/f ex  
- Fam/m ex  
- Fam/p ex  
- Fam/f pe  
- Fam/m pe  
- Fam/p pe  
- Fam/s ex  
- Fam/s pe  
- Fam s econ

### Category 5: Group determinants - Code GP

#### Subcategories

**A) School**  
- a) Attitude toward school  
  - pos  
  - neg

- c) administration support  
  (includes timetable, money, equip)

- d) teachers support (for PE)  
- d) coaches support (for PE)

#### Abbreviations

- GD sch  
- GD sch+  
- GD sch-  
- GD admin  
- GD t sup  
- GD c sup
Category 5: Group determinants - Code GD cont.

Subcategories

B) Peers

a) Peers attitude toward sport
   pos GD p sp
   neg GD p sp-

b) Peers attitude toward PE
   pos GD p pe
   neg GD p pe-

c) Expectation differences (expecting differences between girls and boys, or between high and low skilled)

d) Judgement of ability/effort

e) peer pressure to behave, dress etc. in certain ways

C) Reference Groups: RG

a) Sports heros
b) Role models
   Coach RG role.c
   Teacher RG role.t
   School Athletes RG role.p
   Sport or teams RG sport

Category 6: Mass Media - Code: MM

Sub Categories

a) Magazines
   appearance MM mag ap
   fitness MM Mag fit
   diet MM mag diet

b) TV
   appearance MM TV ap
   fitness MM TV fit
   diet MM TV diet

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Category 7: Behavior - Code: Beh

<table>
<thead>
<tr>
<th>Subcategories</th>
<th>Abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative behavior</td>
<td>Beh-</td>
</tr>
<tr>
<td>Positive behavior</td>
<td>Beh+</td>
</tr>
<tr>
<td>Girl's negative behavior</td>
<td>Beh g-</td>
</tr>
<tr>
<td>Girl's positive behavior</td>
<td>Beh g+</td>
</tr>
<tr>
<td>Boy's negative behavior</td>
<td>Beh b-</td>
</tr>
<tr>
<td>Boy's positive behavior</td>
<td>Beh b+</td>
</tr>
<tr>
<td>Behavior of high skilled</td>
<td>Beh HS</td>
</tr>
<tr>
<td>Behavior of low skilled</td>
<td>Beh LS</td>
</tr>
</tbody>
</table>

On analysis of the data, several of these categories were collapsed and joined with others. These categories, however, show how the data were originally coded.
APPENDIX L

AUTOBIOGRAPHY

Physical education experienced as a student

I attended a parochial school in Australia and was not exposed to physical education as a school subject. I was, however, a competent sports person and involved in interschool, town, and district competitions in several sports. Even in early secondary school, I was convinced of the value of physical education and was disappointed that I was not offered the opportunity to participate in this subject.

Teaching Background

Prior to beginning doctoral work, I taught physical education in several countries: Australia, Pakistan and Botswana. I continued to be convinced of the value of this subject and as a teacher, I was frustrated and disappointed that I was not able to instill a love of this subject in all my students.

Beliefs

Having over two years of research coursework with an emphasis on qualitative methodology, I realized that there has been a voice missing from much educational research—the voice of the student. I believe that it is important to listen to what students have to tell us. What they have to say may contradict teachers' views, and even the views of this researcher at times. I believe, however, that these beliefs, perceptions, and attitudes are valid because they represent how a percentage of the student population look at this microcosm called physical education class.
REFERENCES


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