

# High School Students' Attitudes Toward Physical Education in Delaware

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## Abstract

*It is important to understand high school students' attitudes and perceptions toward physical education since they will be future members of the workforce who will need to use their knowledge to maintain a healthy lifestyle. Content standards are intended to assure that all students meet minimum curricular requirements, however, if students do not find physical education valuable, the content standards may have no meaning either. High school students' attitudes toward their physical education programs in the state of Delaware were studied. These results provide a baseline for further examination of curriculum after implementation of state content standards. The students' (N = 223) attitudes were measured using a 31-item survey. Results indicated approximately 45% of the students would enjoy having more sports or games in their physical education curriculum. The majority (74%) of the students indicated they preferred coeducational classes and 64% preferred working with other students of similar abilities. 43% of the students also indicated that physical education was important to their high school education, rating it just after math, english, and science. Correlation tests revealed that the majority of students who indicated they enjoyed physical education were more likely to enjoy school ( $p < .001$ ). Students who engaged in negative health behaviors, that is, smoking, drinking, or using drugs, were less likely to enjoy physical education ( $p < .005$ ). These findings are important for designing meaningful high school physical education learning experiences that meet state content standards and for influencing students to continue participating in physical activity.*

Preparing our nation's children to meet the demands of the 21st century by acquiring the knowledge and skills needed to be successful and productive citizens has been the focal point of the recent educational reform movement in the United States. Students in our nation's schools are being held accountable to high academic standards. To this end, many states have initiated standards based education to improve academic achievement in each of the areas of the school curriculum. These standards indicate what a student should know and be able to do at specified points in their academic careers. In Delaware, for example, content standards were approved in 1995 by the Department of Education. At this writing, students are tested in english language arts, composed of reading and writing (grades 2-10); mathematics (grades 2-10); science (grades 4, 5, 6, 8 and 11); and social studies (grades 4, 5, 6, 8, and 11). As examples of standards in english language arts, by the end of grade 3 students must be able to write letters, summaries, messages, and reports while at the end of grade 5 students must be able to write these same texts using information from primary and secondary sources without plagiarism. In grade 6 mathematics, the students should be able to analyze real-world data to estimate the probability of future events and calculate the chances of winning or losing a simple game. In 8th grade mathematics, students should be able to construct displays of data and interpret trends in the graphs in order to make predictions (Delaware Department of Education, 1995).

Physical education has not been exempt from this reform at the national level. In 1995 the National Association for Sport and Physical Education (NASPE) defined a physically educated

person as one who has “the knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity” (p. 11) and subsequently developed content standards for physical education. Since that time, individual states have developed standards in health and physical education. This may be viewed as an attempt to combat the sedentary lifestyles plaguing many of our youth by providing knowledge and skills that will influence students’ decisions to pursue an active lifestyle. The development of the content standards may also suggest that physical education is being viewed as an important means in promoting health and wellness that may, in turn, influence students to lead physically active lifestyles. The State of Delaware is in the process of adopting content standards for physical education that have not been implemented statewide. Past practice in Delaware schools has been to offer a sport based curriculum. The new content standards are intended to shift the focus to more of a fitness based curriculum. Because of these efforts it is important to investigate the attitudes of Delaware high school students regarding their preference for a sport based model or a fitness based model.

It is important to examine student attitudes toward their curriculum as they can have a large impact on the success of a class. Attitudes develop at an early age and can be changed based on situational contexts such as a particular teacher or the class environment (Aicinena, 1991). In other words, a student’s attitude toward a particular subject in school can be shaped by his/her perception of the teacher or instructional setting. Attitudes toward physical activity and perceptions about physical education classes are important to understand as they can influence an individual’s decision to begin or to continue participation in an activity (Lee, Kang, and Hume, 1999; Silverman and Subramaniam, 1999).

Studies have examined attitudes and perceptions of students of all ages toward physical education (e.g., Barney, 2003; Bowyer, 1996; Stewart, Green, and Huelskamp, 1991; Tannehill

and Zakrajsek, 1993). However, only a limited number of recent studies have been conducted that assess secondary students’ attitudes and their perceptions toward physical education (Carlson, 1995; Greenockle, Lee, and Lomax, 1990; Luke and Sinclair, 1991; Scantling, Strand, Lackey, and McAleese, 1995; Tannehill, Romar, O’Sullivan, England, and Rosenberg, 1994). There are several variables that influence high school students’ attitudes towards physical education. Carlson (1995) examined high school students’ negative attitudes toward physical education and found that some students did not feel physical education filled a need in their lives and consequently did not find it valuable. A lack of student input gave some students a feeling of powerlessness thereby making them feel as though they did not have any control over what happened in the gymnasium. This finding concurs with Aicinena (1991) who hypothesized teachers who allow some input into classroom decisions while maintaining control of instructional processes may foster positive attitudes toward physical education. Finally, Carlson (1995) concluded students who were less skilled felt isolated from their peers because they were not readily included in team activities or they were ridiculed for their lack of skill. Tannehill et al. (1994) also found students with negative attitudes felt uncomfortable or unsafe learning and practicing physical skills. These students did not participate in class or they used strategies to avoid conflict with the teacher. These attitudes were the same regardless of gender.

Luke and Sinclair (1991) examined potential determinants of male and female high school students’ attitudes toward physical education. They identified five main determinants of attitude: curriculum content, teacher behavior, class atmosphere, student self-perceptions, and facilities. Both male and female students identified these determinants in the same order. Scantling et al. (1995) and Greenockle et al. (1990) also identified related factors contributing to negative feelings toward physical education. These factors

included boredom with activities, not wanting to get sweaty, not wanting to dress out, and the perception that athletes received preferential treatment.

Peer influence was another factor affecting attitudes toward high school physical education Greenockle et al. (1990). The students in their study appeared to engage in more active behavior in physical education classes when they received interest and positive reinforcement from their peers. Also noted was a negative influence of peers who did not dress for class and their direct impact on off-task behavior.

Despite research on high school students' attitudes toward physical education, no studies were found which have a focus on student attitudes toward physical education in relation to a curriculum driven by state content standards. While content standards are intended to assure that all students meet minimum curricular requirements, if students do not find a need for physical education in their lives or do not find it valuable, the content standards possibly may have no meaning in their lives either. These attitudes may lead to avoidance behavior or disruptive behavior in the classroom. What may be one key to the relationships between student attitudes toward physical education and state content standards are the activities offered, the way in which these activities meet the standards, and the presentation of the activities to the students. For example, if one of the standards relates to developing aerobic fitness (NASPE Standard 4) it should be presented along with the concepts of the FITT (frequency, intensity, type, and time) principle, thereby giving the students a better understanding of why the activity is beneficial (NASPE Standard 2) and they will likely have a more positive attitude (NASPE Standard 6).

Therefore, the specific research questions are:

1. What are high school student attitudes toward physical education?
2. How do other variables influence student attitudes towards physical education?

3. What is the perceived importance of physical education?
4. What activities are perceived to be most important to the physical education curriculum?

## Method

### *Subjects*

Students in 9th through 12th grades who were currently taking a physical education class in the state of Delaware were the subjects for this study. These students are required to take one ½ credit of physical education in 9th grade and in 10th grade. Any 11th and 12th grade students in a class were either transfer students from other states, taking the class to make up for a failing grade in a previous year, or taking physical education as an elective. All 223 students who were given the questionnaire completed it. Forty-five percent of the students were male and 55% were female. In addition, 39% of the students were in the 9th grade, 24% were in 10th grade, 16% were in 11th grade, and 21% were in 12th grade (Table 1).

Schools were selected to provide representation from each of the three counties in the state (New Castle, Kent, and Sussex). This was done to provide information from the different socio-economic characteristics of the state. New Castle County, the northern most county, is the second largest county in area but the most densely populated. Sixteen percent of the population lives below the poverty line. Shipyards, auto manufacturing, machinery and chemical procedures, pharmaceutical companies, and banking and finance companies are the major employers. The dense neighborhoods juxtapose the poor with the affluent. There are 12 high schools, three vocational-technical high schools, and two charter high schools. Kent County is the smallest county in area and is the seat of the state capital. Eight percent of the population lives below the poverty line. The major employers for this county are the state government, Dover Air Force Base, and the

**Table 1***Descriptive statistics for population*

Variable	Percentage (N)
Gender	
Males	44.8% (100)
Females	55.2% (123)
Grade Level	
9th	38.6% (86)
10th	24.2% (54)
11th	16.1% (36)
12th	21.1% (47)
Negative Health Behaviors	
Yes	43.1% (94)
No	56.9% (124)
Prefer Co-ed classes	
Yes	78.6% (154)
No	21.4% (42)
Enjoy PE with peers of same ability	
Yes	78.1% (164)
No	21.9% (46)
Enjoy PE with peers of worse ability	
Yes	13.3% (28)
No	86.7% (182)
Enjoy PE with peers of better ability	
Yes	21.9% (46)
No	78.1% (164)
Safety in locker room	
Not at all	7.8% (17)
A little	4.6% (10)
Somewhat	21.2% (46)
Pretty comfortable	28.1% (61)
Very comfortable	38.2% (83)
Comfort in locker room	
Not at all	8.8% (19)
A little	6.0% (13)
Somewhat	27.3% (59)
Pretty comfortable	25.5% (55)
Very comfortable	32.4% (70)
Outside activities	
Yes	63.1% (140)
No	36.9% (82)

paper products and rubber products industries. Kent County has six high schools and two charter high schools. In contrast to these two counties, Sussex County, the southern most county, is the largest county by area and is largely rural with seven high schools. Seven percent of the population lives below the poverty line. Fruit and vegetable farming, dairy products, and fishing are the major industries along with broiler chicken farmers who supply the Eastern market.

The study was explained to physical education teachers from around the state who were in attendance at the state conference sponsored by the Delaware Association for Health, Physical Education, Recreation and Dance. This conference was a state wide in-service day. An equal number of teachers from each county were randomly selected. Therefore, the number of classes included in the study was dependent on the number of classes the teacher taught. Students from all three counties were represented in the survey.

*Procedure*

A 31-item survey was constructed that utilized items from the literature (Carlson, 1995; Luke and Sinclair, 1991; Scantling et al., 1995; Strand and Scantling, 1994; Tannehill and Zakrajsek, 1993) and was tailored to our specific interests. This survey took approximately 15 minutes to complete. Six physical educators, two from each county, and a faculty member from the University of Delaware whose expertise is survey design reviewed the survey. The six physical educators' classes were not included in the final study. All agreed the survey was appropriate. The survey was pilot tested using similar groups of students to confirm the clarity of language and the meaning of the questions and some minor wording changes were necessary.

The University's Institutional Review Board (IRB) approved this study. In compliance with the IRB's policy, students were required to sign an assent form and those students under 18 were required to have a parent sign a consent form to

permit them to participate. The physical education teacher administered the questionnaire during class. Students were told that no individual information would be reported to the teacher and that they could skip any item they did not wish to answer. To ensure student confidentiality, completed forms were placed directly into an envelope and sealed prior to being returned to the teacher. These unopened envelopes were then returned to the investigators.

### *Survey Instrument*

The survey was organized in sections related to (a) demographics and personal information; (b) likes, dislikes, and perceived importance of physical education; (c) importance of other subject areas; and (d) most and least important activities in the physical education curriculum (Table 2).

Demographic and personal information included gender, grade level, and county of residence. Additional information included academic and career goals and participation in school sponsored activities (i.e., band, drama, clubs, sports). Students were asked to identify any activities (i.e. dance lessons and music lessons) in which they participated outside of school, and to indicate how they spent their free time. Finally, students were asked to identify their tobacco, alcohol, and drug use.

The second section addressed the likes, dislikes, and their perceived importance of physical education through open-ended questions such as what they liked/disliked most about physical education, what would make physical education more meaningful, and how frequently they should have physical education. A series of Likert-type scaled questions also asked students' to indicate how safe they felt in the locker room, how comfortable they were in changing in the locker room, whether they preferred coeducational classes, and their preference for classmates in regard to skill ability. Reliability analysis was good with an alpha coefficient of 0.76. Comfort in the locker room was addressed because Ennis

et al. (1997) and Strand and Scantling (1994) indicated that, for some students, in addition to not liking curricular content, the embarrassment of changing and showering in front of strangers, and the locker room environment itself produced a negative attitude toward physical education.

The third part of the questionnaire asked for information about the perceived importance of other school subjects to the students. Using a Likert-type scale the students were asked to respond (1) *not important* to (5) *very important* on how much they enjoyed certain school subjects and how important they thought those subjects were to their future. These subjects included art, english, foreign language, health, history, home economics, industrial arts, math, music, physical education, science, and social studies. Reliability was good with an alpha coefficient of 0.85. The final section of the questionnaire asked students to indicate the most and least important activities in their physical education curriculum. Using the Likert-type scale the students were asked to respond (1) *not at all important* to (5) *very important* on a list of 44 activities that included team sports, individual sports, aquatics, fitness, dance, self-defense, and outdoor recreation. Students could cross out any activities with which they were not familiar. Co-efficient alpha was 0.96.

### *Analyses*

Descriptive statistics were used to determine students' current enjoyment and importance of physical education and preferences in the curriculum. Correlations were conducted to examine the relationships between enjoyment and types of activities. Descriptive statistics were used to determine the students' preferences for co-educational classes, playing with peers of different skill levels, their perceived safety level in the physical education environment, and individual negative health behaviors. Additional chi-square analyses were used to determine the impact of these variables on the enjoyment of physical education.

## Table 2

### *Sample survey questions*

Section 1 Demographics Personal Information	<ul style="list-style-type: none"><li>* Do you enjoy school?</li><li>* Are you involved in any school sponsored extracurricular activity?</li><li>* Do you participate in activities outside school?</li><li>* How many hours per day do you watch TV?</li><li>* During your free time how many days per week do you do the following: Read   Play sports   Play video games   Hang out with friends Play cards   Go to the mall/shopping   Exercise</li><li>* Do you smoke cigarettes?</li><li>* Do you drink alcohol?</li><li>* Do you use any illegal drugs?</li></ul>
Section 2 Likes, Dislikes, Importance of Physical Education	<ul style="list-style-type: none"><li>* What do you like most about physical education?</li><li>* What do you like least about physical education?</li><li>* What have you ever learned in physical education that you consider useful?</li><li>* When I graduate from high school, physical education classes will help me:<ol style="list-style-type: none"><li>1. Perform my job better</li><li>2. Relax</li><li>3. Maintain my fitness level</li><li>4. Stay healthy</li><li>5. I do not believe physical education will help me at all</li></ol></li><li>* How often would you like to have physical education?</li><li>* What could be done to make physical education more meaningful for you?</li></ul>
Section 3 Importance of other subject areas	<p>Please indicate how much you enjoy each of the following subjects: 1 (Not at All)   2   3 (Somewhat)   4   5 (Very Much) Art   English   Foreign Language   Health   History   Home Economics Indust. Arts   Math   Music   Phys. Ed.   Science   Social Studies</p> <p>How important do you think each of the following subjects are to your future? 1 (Not at All)   2   3 (Somewhat)   4   5 (Very Much) Art   English   Foreign Language   Health   History   Home Economics Indust. Arts   Math   Music   Phys. Ed.   Science   Social Studies</p>
Section 4 Importance of Activities Archery	<ul style="list-style-type: none"><li>* Please indicate how important you think each of the following activities is in a physical education program. 1 (Not at All)   2   3 (Somewhat)   4   5 (Very Much) Aerobic dance   Weight training   Basketball   Softball Field hockey   Swimming   Folk dance   Line dancing   Track &amp; Field Roller blading   Gymnastics   Pickle ball   Cooperative games   Soccer Self-defense   Ultimate Frisbee   Wrestling   Racquetball   Bowling</li></ul>

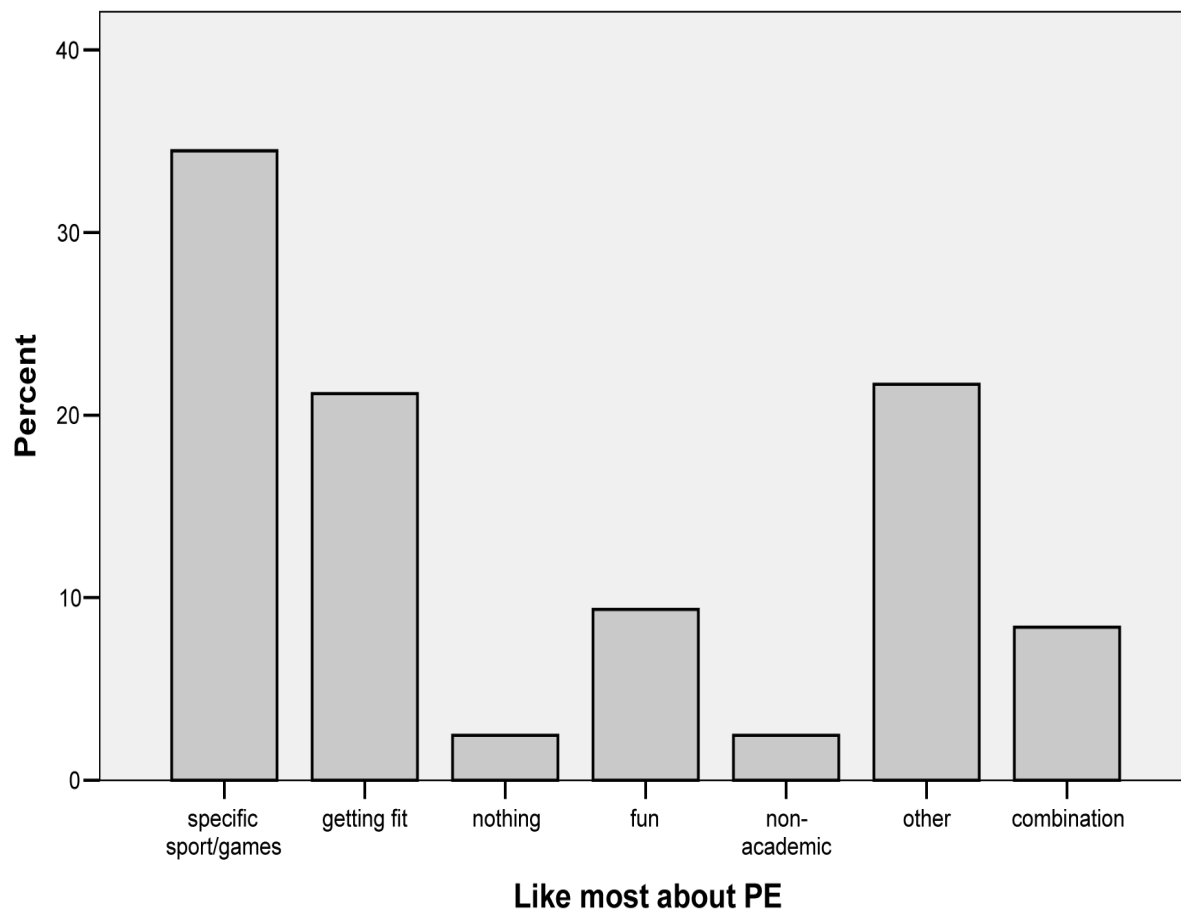
## Results

### *Student's attitudes towards physical education*

When asked what they liked most about physical education, 31.4% mentioned specific sports or games (Figure 1). On the other hand, 18.8% of the students liked running the least.

Approximately 45% of the students indicated that in order to make physical education more enjoyable more sports and games should be offered. Suggestions from the remaining 55% included allowing more personal choice and more strength and fitness opportunities.

Figure 1. What students like most about PE



Descriptive analyses revealed that 43.5% of both high school boys and girls rated physical activity to be important in their high school studies. On a scale of 1-5 (1= *not important*, 5= *very important*), math (4.20), english (4.23), and science (3.40) were the subjects ranked as most

important to their education. However, physical education (3.24) and health education (3.64) were viewed as being more important than history/social studies (3.06), home economics (2.90), foreign languages (3.14), industrial arts (2.36), art (2.18), and music (2.62).

### *Curriculum and enjoyment*

In order to determine which activities had the greatest input on student enjoyment of physical education, correlation analyses were conducted. The students' enjoyment of physical education was significantly correlated with attribution of team sports (such as basketball, baseball, floor hockey and volleyball;  $r = .25$ ;  $p < .0001$ ), fitness activities (aerobic dance, weight training, bicycling;  $r = .20$ ;  $p < .01$ ), individual games (tennis, badminton, track, pickle ball;  $r = .17$ ;  $p < .01$ ), and self-defense (wrestling, karate, judo;  $r = .16$ ;  $p < .05$ ) in the physical education curriculum.

Descriptive statistics revealed that approximately 21% of students responded that physical educators should teach more sports or games while approximately 13% indicated physical educators should teach more skills and strategies and 7.3% responded that students should learn more about fitness. Only 2.5% of the students responded that there was nothing they liked about physical education.

### *Factors important to students' enjoyment*

It was found that the majority (74%) of subjects preferred coeducational classes. Chi-square tests revealed that a preference for coeducational classes was significantly related to enjoying physical education ( $X^2 = .73$ ,  $df = 4$ ,  $193$ ,  $p < .05$ ). Additionally, the majority of the students (64%) preferred to work with students of similar ability. Of the remaining 36%, 18% preferred to work with students with better ability, 10% preferred to work with students with lesser ability, and 8% did not have a preference.

There was a difference in feelings of safety in the locker room between counties. 46.4% of the students in Sussex felt very safe in the locker room while 25.9% in New Castle County felt safe. However, there was no relationship between feelings of safety and attitudes toward physical education. The majority (67%) stated that they felt very comfortable or pretty comfortable in the locker room. However, comfort in the locker room had a significant impact ( $p < .05$ ) on their

enjoyment of physical education with those feeling the most uncomfortable also enjoying physical education less. Additional chi-square analyses revealed that there were significant differences ( $X^2 = 18.91$ ,  $df = 8$ ,  $216$ ,  $p < .01$ ) between students in the three counties in comfort levels. More students in Sussex county felt comfortable (42.3%) than those from New Castle (21.0%) or Kent (25%) counties. Furthermore, 9.8% of the respondents also mentioned getting changed as the thing they least liked about physical education.

Students who indicated that they enjoyed physical education were more likely to also enjoy school ( $X^2 = 27.01$ ,  $df = 8$ ,  $214$ ,  $p < .001$ ), believe that physical education was important ( $X^2 = 50.93$ ,  $df = 16$ ,  $213$ ,  $p < .0001$ ) and that it should be offered more frequently ( $X^2 = 84.51$ ,  $df = 16$ ,  $214$ ,  $p < .0001$ ). It is also interesting to note that those students who believed that health concepts should be taught in physical education were significantly more likely to enjoy physical education ( $p < .001$ ). Additionally, the majority of the students (58%) reported that they would like to have physical education five days per week while only 5% students indicated they would like to never have physical education or to only have it one time per week.

It was found that those students who engage in negative health behaviors (defined as smoking, drinking alcohol, or using illegal drugs) were less likely to enjoy participating in physical education class ( $X^2 = 16.31$ ,  $df = 4$ ,  $215$ ,  $p < .005$ ) as shown in Table 3 than those who did not report having these negative health behaviors. Furthermore, the greater the number of negative health behaviors the students engaged in the less likely they were to enjoy physical education ( $X^2 = 22.89$ ,  $df = 12$ ,  $213$ ,  $p < .05$ ).

### *Outside activities*

Over fifty percent (50.7%) of the students participated in school sponsored extracurricular activities such as band, drama, chorus, clubs, sports, and yearbook. Among those who partici-

pated in extracurricular activities, the most frequently reported activity was sports (56.1%). In addition, 61.7% of all of the respondents reported that they participated in non- school

sponsored activities such as music lessons, dance lessons, and club sports. Once again, the category of sports was the most frequently reported activity (59%). It was found that approximately 93% of

**Table 3**

Negative health behaviors of students and enjoyment of physical education

	Enjoy PE					
	Not at all	Somewhat	Neutral	Pretty Much	Very Much	Total
No negative behaviors	3%	10.7%	25.6%	15.7%	44.6%	100%
Negative health behaviors	6.3%	9.6%	11.7%	36.2%	36.2%	100%

\*Pearson Chi-square:  $p < .001$

the students participated in sedentary activities outside of school only one to two days per week, 42% of the students engaged in social activities three or more days per week, and approximately 45% participated in sports or exercised at least three to four days per week.

### Discussion

Based on the results of this study it would appear that high school students in Delaware perceive physical education to be a positive and valuable experience. Results indicated that high school students believed physical education was an important part of their academic experience, rated just after math, english, and science. This was viewed as a very important finding as Delaware currently has approximately 24 % of their adult population classified as obese, ranking them tied for 15th in obesity rates of adults in the United States (webMD, n.d.). Additionally, recent data from the Centers for Disease Control (CDC) indicates approximately 14 % of the students who participated in the 2003 Youth Risk

Behavior Survey (YRBS) are considered overweight while another 17% are at-risk for being overweight (<http://www.cdc.gov/>). Therefore, it is critical that steps be taken immediately to start to curtail these trends. According to the Surgeon General, physical activity is one of the key elements in attacking this problem (United States Department of Health and Human Resources, n.d.). Consequently, the fact that many of the high school students acknowledge the importance of physical activity may indicate that current public health efforts to reduce obesity rates in Delaware may be working.

As physical educators, we have to believe that we can have a major impact on this disturbing trend if we develop appropriate physical education programs. However, in order to maximize the success that physical education can have it is important that students perceive physical education in a positive manner and learn to enjoy being physically active. Enjoyment of physical activity has been identified as one of the crucial factors for our youth and adolescents to remain

active (Motl, Dishman, Saunders, and Dowda, 2001; Sallis, Prochaska, Taylor, Hill, and Geracci, 1999; Wankel, 1993). This is seen as a critical concern as many of these students will become influential members of the community who will need to be supportive of our physical education programs for our efforts to continue.

To this end, it is important to consider that the students appeared to prefer a more traditional approach to physical education with a majority of students identifying team sports and games as the most enjoyable aspects of the curriculum. This was consistent with findings from previous studies (Tannehill and Zakrajsek, 1993; Tannehill et al., 1994). It is thought that this may also be due to the fact that many students have not experienced anything other than traditional physical education programs as well as the large number of students who participate in sports either interscholastically, intramurally, or on club teams outside of school.

Another important variable in physical education is the use of coeducational classes. Prior to the 1970's most physical education classes were single sex; however, with Title IX and other social changes coeducational classes became much more common. Now, almost all physical education classes are coeducational. The students in this study preferred coeducational classes, a finding which is also supported in the literature (Rice, 1988; Tannehill et al., 1994). When asked why they enjoyed coeducational classes the most typical response was "to look at the girls/boys". This finding would appear to be influenced by the students' developmental stage and their heightened awareness of the opposite gender. Unfortunately, it can also be detrimental to the educational process. Therefore, it is recommended that although coeducational classes may increase the enjoyment they may not be as educationally productive as having more homogeneous grouping of physical education opportunities for the students. This concept is supported by the findings that the majority of students (64%) preferred to participate with

students of similar abilities while only 10% indicated they preferred to participate with students of lesser ability. This clearly indicates the grouping of students may be helpful in increasing enjoyment and possibly participation levels in our schools. This is likely to be of greatest importance at the secondary level as students are more likely to have more concern about peer response to their performance (Goodwin, 1997). Additionally, Kneer (1982) also states this type of grouping creates a much more effective teaching environment for the students. Those who have more skill can be provided additional challenge, while those who are not as skilled should have their needs addressed by adapting for their specific abilities and goals.

In order to address the issues of participating in team or individual sports and participating with classmates of similar ability, it is recommended that teachers incorporate team and individual sports into a fitness based curriculum. In other words, while the teachers should continue with the trend to teach students how to improve or maintain their health through being active, they may be well advised to structure their classes such that those who enjoy team or individual sports will have the opportunity to play small-sided games with classmates of similar ability (NASPE standard 3). This can be accomplished through a task style of teaching, grouping students of differing abilities so those with lesser abilities can play with a modified set of rules. For example, it is not necessary to require all students to play regulation basketball. There are many students who will never be able to develop the appropriate skill set necessary to play a basketball game properly. Therefore, it is good practice to place the players who do have those skills to participate in one activity while those who do not have those skills would be permitted to double dribble, travel, etc. A task style of teaching permits this to occur without emphasizing the different abilities. In other words, while the higher skilled students are working on a fitness or skill development task

the less-skilled students may be playing the small-sided game. Regardless, it is important to focus on teaching the students why they are doing what they are doing, the benefits they are gaining by participating in these activities, while relating all of these activities to the state standards. This will also, hopefully, increase the students perception as to the importance of physical education while helping them experience greater enjoyment.

Environmental variables, such as how one feels in the locker room, may also impact students' attitudes towards physical education. Adolescence is a period in a student's life that is marked by great physical and social developmental changes. The locker room is where there is generally less direct supervision of the students and where students with unsatisfactory body concepts are exposed to their peers. Examining student's feelings in the locker room adds another dimension to the finding of Tannehill et al (1994) that students with negative attitudes felt uncomfortable or unsafe learning and practicing physical skills. It is also important to note that time spent in the locker room is part of the student's total experience in physical education and may have a large impact on how they feel about physical education (Strand and Scantling, 1994; Ennis et al., 1997). Consequently, if students feel threatened or uncomfortable in the locker room, they may be less inclined to change for class and, if they do change, they may already have a negative attitude toward the class. It may, therefore, be important to examine the role of teacher supervision in the locker room as it affects student feelings of safety and comfort. It is recommended that teachers make their presence known in the locker room. This can be accomplished by simply having the teacher stand in the doorway during changing.

Another avenue we believe should be strongly considered is increasing the number of elective physical education offerings for juniors and seniors. Obviously, this becomes a resource issue for many schools. However, in those schools where there are sufficient facilities to handle the

additional students, elective courses can be extremely beneficial. While many of these students may choose sports or games, others may choose fitness options. Regardless of the choice for activities, teachers will have more opportunities to help students remain active.

The proposed Delaware standards state that students should have knowledge of the following: physiology of exercise, biomechanics, motor learning, social psychology, self-management, physically active behaviors, and movement forms and proficiency. For example, under the physiology of exercise, standard one is that students will demonstrate the ability to apply the physiological concepts of exercise by participating in personalized, health-enhancing physical activity programs. By the end of kindergarten, students should demonstrate that physical activity causes the heart to beat faster and breathing rate to increase. However, by the end of grade eight, the student should be able to select an appropriate segment of F.I.T.T. to improve a specific aspect of personal fitness (Delaware Department of Education, 1995).

In order to continue to improve our physical education programs we must remember to listen to the students. We must then mesh their feedback with the state standards so that we can help students become healthy, active adults. Failure to accomplish these goals is likely to result in the continuation of the alarming increase in obesity rates. Our students must learn why physical activity is important to helping them become healthy and productive adults. We must also continue to monitor how the most and least active of our students are responding to the curricular changes that have been brought about by the development of state physical education standards. It is hoped that as the students become more familiar with a fitness-based curriculum that they will learn more about why physical activity is so important, as well as how to exercise safely. As these changes are made, developing programs that are more effective for all of our students may lead to students gaining an

appreciation for the importance of healthy active lifestyles that may carry on into adulthood.

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