

ATTITUDES TOWARD PHYSICAL ACTIVITY

OF FRESHMAN MEN AND WOMEN

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by

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DEDICATION

I would like to dedicate this thesis to my husband, Mike.
Without his love and understanding this study would never have been
completed.

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**THIS BOOK
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NUMEROUS PAGES
WITH THE ORIGINAL
PRINTING BEING
SKEWED
DIFFERENTLY FROM
THE TOP OF THE
PAGE TO THE
BOTTOM.**

**THIS IS AS RECEIVED
FROM THE
CUSTOMER.**

Chapter 1

INTRODUCTION

Play is universal and there are many reasons why people play. History says primitive man's play was for the satisfaction of hunger, thirst, sex, or locating shelter. Later play became a form of education for the purpose of training warriors (28).

Today man plays for different reasons. Mitchell and Mason (28) contend that man plays to feel the thrill of accomplishment. He, therefore, engages in activities that are on the level of his abilities; activities in which he can succeed.

According to Thomas (28: 74-76) man plays to fulfill universal wishes. These include the desire for: (1) new experiences, (2) response, and (3) recognition. Man craves excitement, and all experiences are exciting which have in them some type of pursuit, flight, or the threat of death. The desire for response is the most social of the wishes. A person with this wish gives and seeks signs of appreciation from other individuals. Man also desires recognition. As a result he seeks distinction from skillful and dangerous activities such as sports. This accounts for man's drive for victory and fame.

Faris (28: 76-77) has included two desires in addition to those outlined by Thomas. These are the desire for: (1) participation and (2) the aesthetic. The desire for participation is a desire for affiliation with some group. This is seen in the joining of clubs or teams.

A desire for the beautiful is characteristic of all men. The aesthetic is an appreciation of objects, actions, or experiences which were motivated by talents such as creative talent. Physical activities, such as dancing or gymnastics, are characteristic of this.

Another reason man plays is to relieve the pressures of society. The catharsis theory (18: 54), first suggested by Aristotle, maintains that play is an outlet for the release of emotional tensions and aggressions. These aggressions are transferred, in a harmless way, to socially sanctioned activities such as competitive events.

Man also uses play for scientific purposes. Since the time of Freud the interests of psychoanalysts in play has steadily increased. Play, in this context, allows people to repeat in playful form strong unpleasant experiences, thereby reducing the seriousness of their experiences and improving mental health. Studies relating to psychological play have demonstrated that with ingenuity it is possible to test empirically this theory (18: 57-64).

One of the most important reasons for man to play is to improve his health and physical fitness. Automation and technology have freed many from exhausting physical labor making it necessary to increase physical activity to maintain fitness. Corbin, Dowell, Lindsey, and Tolson (15) suggest that regular activity results in a stronger, more efficient heart, more functional respiration system, and increased muscular efficiency (15: 130-131). Through various forms of play man is capable of maintaining a high level of health and physical fitness.

STATEMENT OF THE PROBLEM

Modern play has changed considerably from that of primitive man.

No longer is play exclusively for the purpose of satisfying basic human needs. Today man plays to fulfill universal wishes, to feel the thrill of accomplishment, and to improve mental and physical health. This study was undertaken to examine two of the reasons behind man's desire to play.

More specifically, the first purpose of this study was to compare the attitudes toward physical activity of three groups of students enrolled in a basic physical education class e.g., (1) students who quizzed out of Concepts of Physical Education, (2) students who attempted to quiz out but failed, and (3) students who did not attempt to quiz out. Scores of separate groups of men and women in each of the three categories were compared since the attitude instruments administered to men and women were different. The second purpose was to compare students passing the quiz out to those who failed, on such variables as town size, high school size, etc.

LIMITATIONS OF THE STUDY

There were two main limitations which existed in this study. They were: (1) the sample did not include all students enrolled in Concepts of Physical Education and (2) attitudes are difficult to assess and the study is dependent on honest answers from students.

DELIMITATIONS OF THE STUDY

The subjects involved in this study were students enrolled in Concepts of Physical Education during the 1973 Spring Semester at Kansas State University, Manhattan. Only those students who participated in the proficiency examination or were enrolled in the randomly selected labs

were tested.

DEFINITION OF TERMS

Concepts of Physical Education - A required basic physical education class which presents the most up-to-date scientific evidence underlying physical education.

Quiz Out - A formal test voluntarily administered to students to determine their knowledge of a subject. Passing the test results in the student being excused from attending the class but still receiving college credit. Failing the test makes it necessary for a student to attend and complete the course to receive credit.

Attitudes - As defined by Kenyon; "a latent or non-observable, complex but relatively stable behavioral disposition reflecting both direction and intensity of feeling toward a particular object, whether it be concrete or abstract.

Social Experience - Activities in which the primary purpose is to provide a medium for social intercourse, i.e. to meet new people and to continue existing relationships.

Pursuit of Vertigo - Experiences which provide, at some risk to the participant, an element of thrill and excitement through the mediums of speed, acceleration, sudden change of direction, or dangerous situations, with the participant remaining in control.

Aesthetic Experience - Those activities which are thought of as processing beauty or certain artistic qualities such as ballet, figure skating, or gymnastics.

Catharsis - Activities which provide a release of tension precipitated by frustration.

Ascetic Experience - Activities that are conceived of as requiring long, strenuous, and often painful training and stiff competition, and which demand a postponement of many other gradifications.

Chapter 2

REVIEW OF RELATED LITERATURE

The term attitude has been in man's literature for over a century. Methods to determine attitudes, however, have developed slowly. According to Kenyon (22) attempts to determine attitude have been plagued by two main problems; namely definition and measurement.

Definitions to explain the concept of attitude have been suggested by numerous authorities. No concensus as to its meaning, however, has been accepted. Thurstone (36: 6-7) in 1926 defined attitude as "the sum total of man's inclinations and feelings, prejudice or bias, pre-conceived notions, ideas, fears, threats, and convictions about any specific topic." In 1946 he altered the definition to "the degree of positive or negative affects associated with some psychological object" (17: 2). Allport (4) one of the leading authorities on attitudes classified them as denoting a "state of readiness for mental and physical activity." After surveying the contemporary writings on the subject, attitude was defined by Kenyon (22: 2) as being a latent or non-observable, complex, but relatively stable behavioral disposition reflecting both direction and intensity of feeling toward a particular object, whether it be concrete or abstract."

Tests designed to measure attitudes are obviously more difficult to construct than those measuring physical actions. However, as Scott (35: 441) has stated, "attitudes, often regarded as intangibles are difficult but not impossible to measure." Serious attempts to measure

attitudes in the field of physical education began over thirty years ago. Since then researchers have developed several valid and reliable instruments to assess attitudes. These include questionnaires, attitude scales, and behavioral record examination (13). A review of the literature revealed numerous studies employing many of these techniques.

MEASUREMENT OF ATTITUDE IN PHYSICAL EDUCATION

Literature in the field of attitudes revealed two methods, Thurstone and Likert, as being the most widely used means of constructing an attitude scale. Thurstone's (36) attitude scale, developed in 1920, is based on the equally appearing intervals technique. In 1932 Likert (25) devised an attitude scale in which each statement is a scale in itself. Both scales are similar in form and require responses to statements about particular subjects, beliefs, ideas, or whatever is being investigated. The statements are presented in questionnaire form and respondents are required to indicate whether and to what extent, for the Likert scale, they agree or disagree with each statement (1).

In 1945 Carr (16) published one of the earliest attempts at physical education attitude measurement. Using the Thurstone method she constructed an eighty-four item test to measure attitudes in the social, personal, and activity areas. The purpose of her study was to determine the relationship between success in physical education and selected attitudes of 355 freshman girls. Carr compared the final mark in physical education with attitude scores, scores on a battery of individual athletic events, and intelligence scores. She concluded that motor abilities, attitudes held, and IQ, in that order, had a significant affect on final

grades.

A self-constructed 121 item attitude test was administered by Nemson (33) to 323 junior and senior high school boys in physical education. The test represented annoyances to factors related to physical education and subjects expressed their degree of annoyance with respect to each item. Boys who were rated with good attitudes, according to instructors, were annoyed by items which would be expected to bother the good boy type. The boys rated with poor attitudes indicated a feeling of rebellion against physical education. Many annoyances Nemson found involved the personality or behavior of other students or the instructor and could be removed.

Plummer (34), in 1952, completed an attitude scale for college women using the Likert method. The final form of the scale consisted of 48 questions. For analysis of the scale a three part questionnaire was administered to 521 women students. Part one of the questionnaire was form A of the attitude inventory, part two consisted of two questions concerned with the student's estimate of her ability and aptitude, and part three was a subjective rating of the student by her physical education instructor. Plummer concluded that the scale was effective in determining the attitude of college women toward physical education and the student's attitude does not necessarily agree with the instructor's estimate of her attitude or the student's motor ability.

The first attitude instrument tested for reliability and validity was introduced by Wear (38) in 1951. The 40 item attitude inventory, along with a nine point self-rating scale and a questionnaire concerned with past experiences, was administered to the required physical education classes for men at the State University of Iowa during the 1949-50 school year. The attitude inventory test was deemed capable of assessing the

direction and intensity of individual and group attitudes toward physical education as an activity course.

Wear (39) developed two equivalent forms of the attitude inventory in 1955. The two forms contained thirty statements each. Validity was established through the use of the favorableness index and the inventory was found to be reliable.

REVIEW OF ATTITUDE SCALES

Several studies have been conducted to determine student attitudes toward required physical education, recreation, or other aspects of physical activity. To evaluate attitudes toward required physical education Bullock and Alden (11), employed a three part questionnaire to study the attitudes of 197 women at the University of Oregon. The first part of the questionnaire was concerned with home life and early experiences of the individual, the second part with high school experiences, and the third was designed to discover unfavorable conditions in the physical education program at Oregon. The results indicated that two-thirds of the students who did not like physical education had a limited high school physical education program or were subjected to poor teaching.

Another study concerning unfavorable attitudes of college girls toward the required physical education program was published in 1932 by Alden (2). Her findings ranked inconvenience of dressing, not enough time for dressing, lack of skills, and insufficient time allotment for each activity as the most unfavorable influences.

The differences in attitudes of college freshman toward physical education after participating in an activity class were studied by Graybeal (20). She found that the control group, not having participated in the

physical education program increased in negative attitudes while the experimental group having participated gained in positive attitudes. It was concluded that attitudes can be changed through knowledge and experiences offered in physical education programs.

The relationship between physical fitness, self esteem, and attitude toward physical activity was examined by Neale, Sanstroem, and Mietz (32) in 1969. The researchers administered to 165 adolescent boys a three part test which included: (1) a measurement of physical fitness as determined by American Association of Health, Physical Education, and Recreation youth fitness scores, (2) a ten item self esteem scale developed by Rosenberg, and (3) a check list to estimate the degree of participation in physical activity. Results indicated a close relationship between estimation of ability in, and self perceived attraction to physical activity. The major accomplishment of the investigation was to demonstrate the use of a measure of attitude in relation to physical activity.

Hunter (20) in 1956 administered a questionnaire study to women students at Florida University to determine their attitudes toward college physical education. Findings indicated that of the 687 tested 142 expressed strongly favorable attitudes and 70 expressed strongly unfavorable attitudes toward physical education.

Another questionnaire survey was undertaken by Baker (5) in 1940. She gave a questionnaire to 1150 girls and women between the ages of 15 and 25 years which sought information concerning height, weight, chronological age, and menarcheal age, and attitude toward physical activity. Baker concluded from the results that psycho-physical factors seem to exert very slight influences upon participation in physical education.

She further concluded that attitude in relation to physical activity was a reflection of outside influences.

Using a ten percent sampling of all junior and senior women in each major department at the University of California, Los Angeles, Moore (30) conducted a survey on the attitudes of college women toward physical education as a means of recreation. She administered form A of the Bues Rommer scale and an interview to each of the 179 subjects. Moore concluded there was a highly favorable attitude among college women toward recreation, however, time spent in recreation was low owing to study, lack of companions, and work.

In 1964 Mista (29) conducted a survey using a modified Plummer inventory and background questionnaire to determine the attitudes of college women toward their high school physical education programs. The tests were administered to 1,126 freshman women in 14 private colleges in Iowa. Mista reported significant differences in attitudes toward physical education were found between those earning scholastic letters and those not earning letters, those graduating from a small high school class (75 or less) and those graduating from a large class (400 or above), those participating in organized physical activity programs outside school and those not, and those from farms as opposed to those from cities. No significant differences in attitudes were found in those who had men or women teachers and those who attended parochial schools.

ATTITUDE STUDIES UTILIZING THE WEAR ATTITUDE INVENTORY

Since the development of the Wear (38, 39) Attitude Inventory many investigators have used it in their research to measure attitudes.

One such study published in 1953 by Bell and Walters (6) studied the attitudes of college women at the University of Michigan. A total of 173 seniors and 684 freshman were administered a three part questionnaire consisting of: (1) a check list response concerning background in physical education, (2) questions based on the objectives of physical education, and (3) the short form of the Wear Attitude Inventory. It was concluded that freshman who had physical education in high school had a better mean attitude than freshman without high school physical education and that freshman had a better attitude than seniors. The subjects rated the social, physical, and mental health attributes of physical education high with mental health rated the highest.

Broer, Fox, and Way (8) combined in 1955 to publish an article which surveyed the attitudes of 1,149 college women toward physical education as an activity course. The short form of the Wear Attitude Inventory was administered to the group. Study of the total scores showed that the majority of the students had favorable attitudes toward physical education. As in the study at the University of Michigan (6) a high percentage of the students indicated that physical education activity classes contributed to social, mental, and physical health development.

Billing (7) studied the attitudes of women at Kansas State Teachers College, Emporia. A checklist and the Wear Inventory were administered to 729 women enrolled in physical education activity classes. She found the women to have a significantly favorable attitude, seniors, having a significantly more favorable attitude than junior, sophomore, or freshman women.

The relationship between success in physical education and the attitudes of 188 college women toward physical education was determined

by Vincent (37) using the Wear Inventory. The success factor was the final grade in physical education. It was concluded that college women appreciated the contributions of physical education and generally expressed a favorable attitude toward physical education. A significant relationship between expressed attitude and success in physical education was also indicated, however, no conclusion as to the cause and effect relationship between these variables was proposed.

Keogh (23) published a study in 1962 which analyzed the responses of 266 men and women to form A of the Wear Inventory. The results of the study indicated that men and women were not different in their attitudes toward physical education and that they supported equally the social, emotional, and physical values of physical education. However, they were critical of the values of physical education as a school subject.

In another study, developed from information gathered on the original group of 266 subjects, Keogh (24) examined responses and characteristics of 69 men and women whose stated attitudes toward physical education were extremes of high and low. Additional data were obtained through a group interview questionnaire. The extreme groups examined in this study and the total group of 266 subjects, from which the extreme groups were drawn, had similar patterns to responses to the Wear items. There were no male female differences within the total group nor within extreme groups. Based upon descriptive information, the low groups offered some minimum support for physical education as a school program. There was no evidence to indicate that negative attitudes were related to non-participation.

Brumbach and Cross (9), using the Wear Attitude Inventory short form A, conducted a study which measured the attitudes of incoming male

lower class students at the University of Oregon toward physical education. The results indicated that, as a group, the students had a favorable attitude toward physical education. In comparing the mean scores of this group to Keoghs (23) the Oregon students scored much higher. The University of California at Los Angeles students, however, had also had some experience in the universities physical education program before being evaluated.

A study to determine the attitudes of two groups of college women toward the required physical education program at Northern Illinois University was conducted by Moyer, Mitchum, and Bell (31). They used a two part questionnaire-inventory incorporating Wear's Attitude Inventory to measure the attitudes of the subjects. Part one consisted of multiple choice questions constructed to determine the physical education experiences in high school and college and part two was a modified version of the Wear Attitude Inventory. Their findings indicated that: (1) a majority of the subjects indicated a preference for individual sports over team sports and (2) there was a similar highly favorable attitude toward the physical education program by both groups.

The Wear Inventory was utilized by Campbell (11, 12, 13) in three separate publications to determine attitude. In 1968 he administered the test to one seventh, eighth, and ninth grade boy's physical education class in each of five junior high schools. Campbell concluded that the Wear Inventory was an appropriate instrument to measure the attitudes of junior high boys (12). To determine attitudes on the basis of background information Campbell (11) administered the inventory to 199 lower division male students. He found that attitudes towards physical education can be determined from background information. Also, he found significant vari-

ation in attitudes concerning physical education could be predicted by the size of the high school attended, the area of academic interest, or the preference of physical activity. In contrast, Mista's study (29) revealed that the size of the high school did not influence attitudes toward physical education. The third study in which Campbell (13) employed the Wear Inventory was to determine the relationship between attitudes and physical fitness scores. The 50 yard dash, 660 yard walk run, and the Wear Inventory were administered to 240 eighth grade boys. Campbell concluded that no significant relationship existed between attitudes towards physical education as measured by an attitude inventory and the ability to perform selected physical fitness items.

KENYON'S ATTITUDE SCALE

As previously discussed, a variety of techniques and methods have been developed and employed by researchers to measure attitudes toward physical education. According to Kenyon (22), however, these methods have suffered numerous short-comings.

These short-comings include: (1) insufficient attention being paid to physical activity in general; most research has been restricted to physical education or sports, (2) inappropriate test construction procedures, and (3) failure of scaling procedures (where employed) to account for the many dimensions of the domain being tested (22).

Kenyon (22) "assuming that physical activity could be reduced to more specific or meaningful components" made an attempt to overcome these problems. In 1968, he published a multidimensional scale for assessing attitudes toward physical activity. The six scales, described in detail by Kenyon (21), are as follows:

1. Physical activity as a social experience--A characterization of activities whose primary purpose is to provide a medium for social intercourse such as meeting new people and continuing existing relationships.
2. Physical activity for health and physical fitness--A characterization of those activities in which participation is designed to improve one's health and physical fitness.
3. Physical activity as a pursuit of vertigo--A characterization of those activities, or experiences providing, at some risk to the participant, an element of thrill and excitement through the mediums of speed, acceleration, sudden change of speed or direction, or exposure to dangerous situations, with the participant remaining in control.
4. Physical activity as an aesthetic experience--A characterization of those activities which are thought of as possessing beauty or certain artistic qualities such as ballet, figure skating, or gymnastics.
5. Physical activity as catharsis--A characterization of those activities which provide, through some means, a release of tension precipitated by frustration.
6. Physical activity as an ascetic experience--A characterization of those activities that are conceived of as requiring long, strenuous, and often painful training and stiff competition, and which demands a postponement of many other gratifications.

For each of the six subdomains of the scale Kenyon developed seven alternative, Likert-type attitude statements thought to be representative of each domain. After being evaluated by judges and revised these were incorporated into two separate but similar inventories, one inventory for college men and the other for college women.

The results were analyzed in terms of reliability and validity.

For the six scales reliability was calculated using Hoyt's method. For both men and women Hoyt's r was the lowest for the social experience scale and highest for the pursuit of vertigo. With the exception of physical activity as catharsis, validity scores differentiated between strong and weak preference. Kenyon concluded that a moderately reliable and valid scale had been developed for each subdomain except physical activity as catharsis.

A limited number of studies have utilized Kenyon's scale. In 1970 Alderman (3) employed the scale to examine the attitudes of a group of championship athletes toward physical activity. The purpose of this evaluation was to discover the structure of attitude formation in athletes and to examine whether this structure was similar or different for non athletes. The inventory was administered to 81 male and 55 female Canadian athletes during the 1967 Pan-American games. Alderman drew the following conclusions from his study: (1) male and female athletes are very similar in their attitudes toward the various dimensions characterizing physical activity, (2) a strong attitude toward physical activity as an aesthetic experience was exhibited by male athletes, and (3) a weak response toward physical activity as an ascetic activity was predominant. Alderman explained that the third conclusion indicated that although long, strenuous, training is necessary in most sports there is not a favorable attitude toward it.

Although Kenyon's scale is relatively new and untried the author felt that it was an excellent tool to measure attitudes. The scale is capable of measuring many aspects of physical activity, employs sound test construction procedures, and has been proven to be valid and reliable for measuring attitudes in men and women toward physical activity. For

these reasons Kenyon's Scale for Assessing Attitude Toward Physical Activity was chosen to be the measuring instrument for this study.

SUMMARY

A review of the related literature revealed that numerous attitude studies have been conducted. It can be seen that many studies, using the Likert and Thurstone technique combined with the Wear Inventory, have successfully measured a single dimension of attitude toward physical education. Further, studies have indicated that attitudes toward physical education are influenced by the backgrounds of students. It can be seen that the Kenyon Attitude Toward Physical Activity Scale is a valid and reliable research instrument. It is evident, however, that little research has been reported using the instrument; especially relating to attitudes of students who attempt to quiz out of physical education. It is the lack of this information which prompted this study.

Chapter 3

METHODOLOGY

Subjects

Subjects for this study were 528 male and female students enrolled in Concepts of Physical Education at Kansas State University during the 1973 Spring Semester. Subjects were categorized into three groups according to the students decision to attempt the proficiency examination or to take the class.

Students registered to participate in the proficiency examination represented 311 subjects. This provided the following two groups of subjects for this study: (1) 49 male and 52 female students who attempted the quiz out and passed and (2) 113 male and 97 female students who attempted the quiz out but failed. The third group of subjects is represented by 121 male and 92 female students enrolled in Concepts of Physical Education who chose not to attempt the quiz out. The remaining subjects were not assigned to groups due to incomplete or inaccurately marked answer sheets.

Testing Instrument

A two part test consisting of an attitude scale and an information questionnaire was the testing instrument employed for this study.

The Attitude Toward Physical Activity Scale (ATPA scale) Form DM for men and Form DW for women, developed by Kenyon (21, 22) was utilized to determine the attitudes of the students. The test is a multidimensional

scale designed to assess attitudes in the areas of: (1) social experiences, (2) health and physical fitness benefits, (3) aesthetic experiences, (4) catharsis benefits, (5) ascetic experiences, and (6) physical activity as a pursuit of vertigo.

Part two of the test was an information questionnaire. The questionnaire consisted of twenty questions, developed by the author, to obtain information relative to each student. Included in the questionnaire were questions pertaining to a student's sex and age and background information on a student's home town, high school, and participation in physical education and related physical activities. Copies of the testing instruments are located in the appendix on pages 52-69.

Test Administration Procedures

The ATPA scale along with the information questionnaire was administered twenty-two separate times. The author personally administered the two-part test on January 20 and March 24, 1973, during the Concepts of Physical Education proficiency testing sessions. The remaining testing sessions were conducted in twenty randomly selected Concepts classes during the second week of class. These classes were selected by employing a random list of figures. Instructors of the selected classes administered the two-part test to their own students.

During each of the testing sessions subjects were provided with verbal and written instructions, the attitude test, an information questionnaire, and an answer sheet. Students were instructed to label the answer sheet with only their sex, test number, and Kansas State University identification number. To enhance privacy names were purposely omitted from the answer sheet.

Treatment of the Data

Answer sheets were scored in the following manner. The ATPA scale contains statements relating to the six subdomains. Each statement has seven possible answers. They are: Very Strongly Agree, Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree, and Very Strongly Disagree. These responses were given a point value ranging from one to seven according to prepared score sheets (see Appendix pages 70-71) for each scale. The higher the score indicated a more favorable attitude.

Five of the subdomains for men have ten statements which refer to them. The sixth domain, catharsis, has nine statements. This means that a range of ten to seventy points is possible for five of the six domains. The catharsis domain has a range of nine to sixty-three points.

For women, the pursuit of vertigo, aesthetic, and catharsis subdomains have nine statements which refer to them, therefore, a range of from nine to sixty-three points is possible. The ascetic and social subdomains have eight statements with a possible range of from eight to fifty-six. The remaining subdomain, health and physical fitness, has eleven statements with a range of eleven to seventy-seven possible points.

The raw data was gathered and put into table form according to sex and group classification. The scores were punched on cards for submission to a computer at Kansas State University.

An analysis of variance was calculated to compare mean attitudes of the three groups of subjects. Mean differences between these variables were compared with Duncan's Multiple Range Test when F was significant at the .05 level. A crosstabulation of the three groups of subjects and the information variables was also programmed on the computer.

Chapter 4

RESULTS AND DISCUSSION

Results

An analysis of variance was calculated to compare mean scores of the three groups on each attitude domain. Duncan's Multiple Range Test was calculated to see between which of the three groups the differences existed when the F was significant. Table 1 shows the results of the analysis of variance for the male pursuit of vertigo domain.

Table 1

ANOVA for Male Pursuit
of Vertigo

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	127.0625	2	63.5313	.60
Error	24729.8125	233	106.1356	
Total	24856.8750	235		

As indicated the F was not significant at the .05 level, however, the means are given for the benefit of the reader in table 2.

Table 2

Male--Pursuit of Vertigo
Means and Post F Results

Attempt Pass	Attempt Fail	No Attempt
46.7111	46.051	45.110

As indicated in table 3 differences between the groups in the female pursuit of vertigo domain were significant.

Table 3
ANOVA for Female Pursuit
of Vertigo

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	261.2695	2	130.635	3.37
Error	8096.9805	209	38.742	
Total	8358.2500	211		

The post F test, in table 4, showed the significance was between the no attempt and attempt pass groups.

Table 4
Female--Pursuit of Vertigo
Means and Post F Results

No Attempt	Attempt Fail	Attempt Pass
<u>36.723</u>	<u>35.654</u>	33.792

The results of the male and female ascetic analysis of variance, tables 5 and 6, indicated the post F test was significant. The post F tests, table 7 for men and table 8 for women, indicate that the difference was between students attempting and passing the quiz out and students not attempting or attempting and failing the quiz out.

Table 5
ANOVA for Male
Ascetic

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	628.5977	2	314.2988	3.74
Error	19570.4648	233	83.9934	
Total	20199.0625	235		

Table 6
ANOVA for Female
Ascetic

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	385.3750	2	192.6875	3.32
Error	12121.5000	209	57.9976	
Total	12506.8750	211		

Table 7
Male--Ascetic Means
and Post F
Results

Attempt Fail	No Attempt	Attempt Pass
40.856	39.540	36.103

Table 8

Female--Ascetic Means
and Post F Results

No Attempt	Attempt Fail	Attempt Pass
50.181	49.593	46.729

Table 9 and 10 indicate the male and female analysis of variance for the aesthetic domain.

Table 9

ANOVA for Male
Aesthetic

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	104.4375	2	52.2188	.62
Error	19782.1250	233	84.9018	
Total	19886.5625	235		

Table 10

ANOVA for Female
Aesthetic

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	254.2070	2	127.1035	1.64
Error	16154.9810	209	77.2962	
Total	16409.1250	211		

No group, as indicated by the F, scored significantly higher than the others. The means, however are given in tables 11 and 12 for the benefit of the reader.

Table 11

Male--Aesthetic Means
and Post F Results

Attempt Pass	Attempt Fail	No Attempt
41.897	40.722	39.990

Table 12

Female--Aesthetic Means
and Post F Results

Attempt Fail	No Attempt	Attempt Pass
38.111	37.012	35.208

A significant score was recorded for the male catharsis domain in table 13.

Table 13

ANOVA for Male
Catharsis

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	335.3281	2	167.6641	2.81
Error	13900.4844	233	59.6587	
Total	14235.8125	235		

The post F test, table 14, indicated there was a significant difference between the attempt fail and no attempt groups.

Table 14
Male--Catharsis Means
and Post F Results

Attempt Fail	Attempt Pass	No Attempt
<u>42.660</u>	<u>40.795</u>	40.090

The results of the social domain analysis of variance, table 15, shows the F was significant.

Table 15
ANOVA for Female
Social

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	404.6445	2	202.3223	4.27
Error	9909.7305	209	47.4150	
Total	10314.3750	211		

The post F test, table 16, reports the significance existed between the attempt pass and no attempt and attempt fail groups.

Table 16
Female--Social Means
and Post F Results

No Attempt	Attempt Fail	Attempt Pass
<u>32.771</u>	<u>31.753</u>	29.146

The results of the analysis of variance for the male health and physical fitness domain, table 17, and social experiences domain, table 18, did not report significant F scores.

Table 17

ANOVA for Male Health and
Physical Fitness

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	61.6250	2	30.8125	.50
Error	14535.6250	233	62.3846	
Total	14597.2500	235		

Table 18

ANOVA for Male
Social

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	19.6875	2	9.8438	.21
Error	10801.0625	233	46.3565	
Total	10820.7500	235		

The mean scores are presented to benefit the reader in tables 19 and 20 for the health and physical fitness and social domains respectively.

Table 19

Male--Health and Physical Fitness
Means and Post F Results

Attempt Pass	No Attempt	Attempt Fail
43.330	42.970	41.846

Table 20

Male--Social Domain Means
and Post F Results

Attempt Fail	No Attempt	Attempt Pass
44.392	43.810	43.795

The female analysis of variance tests for the catharsis, table 21, and health and physical fitness, table 22, domains indicated that no significant F was computed for either domain.

Table 21

ANOVA for Female
Catharsis Domain

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	248.5000	2	124.2500	2.01
Error	12938.1250	209	61.9049	
Total	13186.6250	211		

Table 22

ANOVA for Female Health
and Physical Fitness

Source	Sum of Squares	Degrees Freedom	Mean Squares	F
Groups	10.8125	2	5.4063	.09
Error	13298.9375	209	63.6313	
Total	13309.7500	211		

For the benefit of the reader the means are provided for the catharsis domain, table 23, and health and physical fitness domain, table 24.

Table 23

Female--Catharsis Means
and Post F Results

Attempt Fail	Attempt Pass	No Attempt
40.481	40.313	38.205

Table 24

Female--Health and Physical
Fitness Means and
Post F Results

No Attempt	Attempt Pass	Attempt Fail
41.024	40.667	40.519

A crosstabulation of the three groups and the information variables, for both men and women, was used to determine if there were significant differences in responses between the groups. Table 25-44 present a summary of the crosstabulation results for men and women. The tables indicate that several differences between groups did exist.

The first variable to be discussed is that of age. The cross-tabulation, table 1, indicated the greatest percentage of all men attempting the quiz out and passing were 18 years or younger.

Table 25

Male--Age

AGE	%AP	%AF
18 or younger	35	65
19	20	80
20	12	88
21	0	0
22 or older	0	100

The age variable for women, table 26, revealed that the greatest percentage attempting the quiz out were in the 18 or younger age bracket. However, unlike the men, the greatest percentage of women passing the quiz out were in the 19 year old group.

Table 26

Female--Age

AGE	%AP	%AF
18 or younger	35	65
19	38	62
20	100	0
21	0	100
22 or older	100	0

Concerning the variable of community size for men, table 27, there appeared to be a difference between the small and large cities. Students from the smaller communities appeared to do better. A greater percentage of the students from the small communities attempted and passed the proficiency examination than did those from the larger communities. Also, the smaller communities had fewer subjects fail the quiz out. The 6,000 to 9,999 group represented the greatest percentage passing, however, this category represented only four subjects.

Table 27
Male--Community Size

POPULATION	%AP	%AF
1,999 or less	36	64
2,000-3,999	40	60
4,000-5,999	13	87
6,000-9,999	75	25
10,000 or more	23	57

Results of the community size variable for women differed from those of the men. As indicated in table 28 the groups representing the greatest percentage of quiz outs were the medium sized communities of 4,000 to 9,000. In contrast to the men the poorest percentage of quiz outs represented the smaller communities of 1,999 or less.

Table 28
Female--Community Size

POPULATION	%AP	%AF
1,999 or less	30	70
2,000-3,999	38	62
4,000-5,999	58	42
6,000-9,999	60	40
10,000 or more	35	65

Table 29 shows the variable of graduation class size was important. A larger percentage of male students from a class of 100-199 in high school quizzed out than from any other group and a smaller percentage failed the test. The larger classes of 200 and above represented the poorest test results.

Table 29

Male--Size of High School
Graduating Class

STUDENTS	%AP	%AF
Below 50	38	62
50-99	33	67
100-199	47	53
200-299	19	81
Above 300	21	79

The variable of high school graduating class for women, reported in table 30, appeared to have an influence upon the scores. In accord with the men's results the greatest percentage of students quizzing out were graduated from a class of between 100 and 199. The poorest results represented the 50 to 99 size class.

Table 30

Female--Size of High School
Graduating Class

STUDENTS	%AP	%AF
Below 50	39	61
50-99	29	71
100-199	59	41
200-299	38	62
Above 300	34	66

The variable of semesters of high school physical education was quite interesting for the men. The results, table 31, indicated that the greatest percentage of students quizzing out represented the 1 or 2 semester group. Of the students taking physical education for 7 or more semesters only 1% quizzed out. No student who hadn't previously taken

physical education quizzed out.

Table 31

Male--Semesters of
Physical Education

SEMESTERS	%AP	%AF
None	0	100
1 or 2	41	59
3 or 4	28	72
5 or 6	18	82
7 or more	1	99

The number of semesters of high school physical education, for women, had a very minute statistical difference. Most women reported completing 3 or 4 semesters of physical education. Statistically, however, this is unimportant. Women completing 0 to 7 semesters of physical education did equally well as indicated by table 32.

Table 32

Female--Semesters of
Physical Education

Semesters	%AP	%AF
None	33	67
1 or 2	26	43
3 or 4	39	61
5 or 6	31	69
7 or more	37	63

The greatest percentage of men and women quizzing out of Concepts were from the not interested group of the intramural variable. This is reported in tables 33 and 34.

Table 33

Male--Intramural
Participant

AMOUNT	%AP	%AF
Never-Wasn't offered	30	70
Never-Wasn't interested	44	56
Out for Athletics	35	65
Participated-Occasionally	23	77
Participated-Frequently	32	68

Table 34

Female--Intramural
Participation

AMOUNT	%AP	%AF
Never-Wasn't offered	27	63
Never-Wasn't interested	58	42
Out for Athletics	0	0
Participated-Occasionally	29	71
Participated-Frequently	29	71

There appeared to be very little difference in test results of home town location for men as indicated by table 35.

Table 35

Male--Home Location

LOCATION	%AP	%AF
Farm	30	70
Country	31	69
Suburbs	31	69
City	28	72

The women's scores for the home town variable, table 36, indicates that a slight difference existed in the results. The group indicating that they were from the suburbs had a larger percentage quizzing out but the other location types reported similar results.

Table 36

Female--Home Location

LOCATION	%AP	%AF
Farm	34	66
Country	33	67
Suburbs	41	59
City	37	63

Little difference between interscholastic sports participation and non-participation was indicated for males. Results are shown in table 37.

Table 37

Male--Interscholastic
Sport Participation

RESPONSE	%AP	%AF
Yes	27	73
No	32	68

Results of the interscholastic sport variable for women coincided with the men's results. As indicated by table 38 the greatest percentage of women quizzing out of Concepts did not participate in interscholastic sports competition.

Table 38

Female--Interscholastic
Sport Participation

RESPONSE	%AP	%AF
Yes	30	70
No	40	60

Regarding the enjoyment of physical activity variable an important difference was reported for men. Table 39 indicates a greater percentage of students reported a dislike for physical education who quizzed out than those responding as enjoying physical education.

Table 39

Male--Enjoyment of
Physical Activity

RESPONSE	%AP	%AF
Yes	26	74
No	33	67

The results of the physical activity enjoyment variable, table 40, for women are in agreement with the men's results. A greater percentage of those not enjoying physical education attempted and passed the quiz out than those enjoying physical education.

Table 40

Female--Enjoyment of
Physical Activity

RESPONSE	%AP	%AF
Yes	33	67
No	50	50

Table 41 indicates that the type of high school attended influenced the male scores. The greatest percentage of students quizzing out of the class and the least amount failing the test attended a city parochial school.

Table 41

Male--Type of High School

TYPE	%AP	%AF
Rural-Public	35	65
Rural-Parochial	0	100
City-Public	24	76
City-Parochial	40	60

There appeared to be little statistical difference in test results of the following variables for women: (1) type of high school attended and (2) ability in physical education. These scores are represented in tables 42 and 43.

Table 42

Female--Type of High School

TYPE	%AP	%AF
Rural-Public	38	62
Rural-Parochial	0	0
City-Public	39	61
City-Parochial	25	75

Table 43

Female--Ability in
Physical Education

ABILITY	%AP	%AF
Average	38	62
Above average	36	64
Below average	35	65

Table 44 reports the results of the ability in physical education variable for men. The largest number of men reported themselves to be above average in physical activities and this group had the lowest percentage quiz out of the class. The men who reported being below average had the greatest percentage quiz out.

Table 44

Male--Ability in Physical
Education

ABILITY	%AP	%AF
Average	30	70
Above average	23	77
Below average	71	29

Discussion

The results of the analysis of variance and crosstabulation computations will be discussed in an attempt to explain the statistical findings.

The findings of the pursuit of vertigo domain for women was significant between the no attempt and attempt pass groups. Indications are that members of the no attempt group enjoy participating in physical

activities provide some excitement in their lives and the attempt pass group would rather find excitement and thrills in other ways. The men's scores for the three groups were not statistically different. Men have been participating in sports, in some form or another, for years. Women, however, are just now starting to participate in athletic programs. Women who enjoy physical activities, therefore, can gain a thrill or some excitement from participating in physical activity events or classes. This type of situation is new to women, whereas, for men its a common event and the thrill or feeling of excitement derived from athletic participation has dwindled.

The analysis of variance of the ascetic scale, for both men and women, indicated that students attempting and passing the quiz out had the lowest attitude of the three groups. This suggests that students not enjoying activities which require strenuous work or stiff competition tried harder to pass the quiz out examination to be excused from an unfavorable situation. In contrast to this the no attempt group, who possibly enjoys this type of activity, may have heard from former students that Concepts classes did not overly stress these type of activities.

The aesthetic domain for both men and women reported non-significant scores between groups. The aspect of beauty is apparently not strong enough to influence a student's decision concerning a general basic physical education class. The media of today provides outstanding coverage of physical activities which possess aesthetic qualities--such as gymnastics, figure skating, dance, etc. Perhaps this exposure to the aesthetic qualities of physical activities is adequate and student's don't feel it's necessary to actually engage in the activities themselves.

For men the analysis of variance test was significant for the

catharsis domain. The significance being between the attempt fail and no attempt groups. This suggests to the investigator that the attempt fail group was interested in quizzing out, however, they were not overly concerned about the class being one that was strenuous enough to relieve tensions. Therefore, they did not exert much effort when studying for the examination. The catharsis domain was reported as having insignificant scores between the three groups for women. This suggests that the domain had little effect upon a student's decision to attempt the quiz out. College students generally have more time to engage in leisure type activities and possibly have or use other methods to relieve their tensions. Therefore, this was not a significant factor in the women's decision concerning the Concepts examination.

For women the social domain was significant between the no attempt and attempt pass groups. This is an understandable finding. People who are very social enjoy being with others, making new friends, or maintaining existing relationships. The Concepts class is an opportunity for women to fulfill these goals. Therefore, students who appreciate this aspect of activity classes would not attempt to quiz out and people who dislike being with others or don't appreciate the social aspect of physical activity would attempt and pass the quiz out. In addition, the activities of women are partially regulated by the attitudes of society. Women are freer in their actions than they were 50 years ago, but society still condemns overly aggressive women. The Concepts class was one of the ways females interested in meeting men could accomplish this goal and remain in the graces of our society. The men's scores were not significant between the three groups. Men in this age group of from 18 to 22 are very interested in social relationships--both male and

female. However, during this time in their lives college students have a variety of methods at their disposal to meet new people and, therefore, were not overly influenced by the social aspect of the concepts class. Also, society does not condemn males for being aggressive in their dating habits. For a man it would not be necessary to take the concepts class for the purpose of meeting girls.

Differences between the three groups for the health and physical fitness domain for both men and women were not significant. This finding can be attributed to the student's youthfulness. Perhaps college age students are less concerned about maintaining health and physical fitness because they are young and have not experienced health related problems. Also, college age students have a variety of other activities at their disposal which they can participate in to receive adequate exercise. The health and physical fitness aspect of concepts did not, therefore, overly influence any groups decision concerning the proficiency examination.

The findings of the age variable crosstabulation for men and women is understandable. The Concepts of Physical Education class being tested was predominately a freshman class composed of students in the 18 to 19 year old age bracket.

Results of the community size crosstabulation proved to be very informative. For women, the larger communities of from 4,000 to 9,999 had the greatest percentage quiz out. This suggests that these people had the greatest amount of knowledge concerning physical education. In Kansas, the larger communities are the ones that are most able to afford physical education specialists for each of their schools; elementary through high school. Women coming from these towns would, therefore, have a more

well rounded background in physical education than students who never had a course in physical education. The smaller communities, which reported the smallest percentage attempting and passing are less able to afford a physical education teacher for each school. Also, the physical education teacher in smaller districts generally has a heavier work load of extracurricular activities, such as sponsoring clubs and coaching athletics, which takes planning time away from teaching.

The variable of graduating class size for men and women indicated that most people attempting and passing the quiz out were from a class of from 200-299. For Kansas schools this is a large class. In larger schools, unless a student has superior physical ability he or she will not make the athletic teams. Whereas, in a smaller school the less physical able can still compete and secure a place on the athletic teams. Possibly students from the larger schools, because of not being able to compete on the interscholastic teams, have developed negative attitudes toward physical activities and tried to avoid the activity class.

The number of semesters of physical education taken by men and women attempting and passing the quiz out were 1 and 2 and 3 and 4 respectively. People taking physical education for seven semesters did equally well. This suggests that physical education instructors are not stressing basic concepts important to physical education. No matter how many semesters of physical education are taken the essential information is not learned. Otherwise, people taking physical education for seven semesters would have scored significantly higher than those taking it for one or two semesters.

Concerning the variables of intramural participation, the highest percentage attempting and passing the quiz out were in the not interested

group for both men and women. This finding indicates that the students who passed the quiz out disliked physical activities as a recreational pursuit and, therefore, tried harder to pass the examination. Also, that intramurals in accordance with its definition, is a recreational experience as opposed to a learning one. Thus, students engaged in intramurals would not necessarily gain basic physical education concepts.

No apparent importance existed in the variable of home town type or location. This suggests to the investigator that attitudes toward physical activity are formed no matter where a person lives or the type of background they have.

Little difference between interscholastic sport participants and non-participants were indicated for both male and females. This is explained in that many athletes are only well informed about their particular sport. They are unaware of the basic concepts behind physical ability and interested mainly in specific plays or procedures. Another possible explanation is that athletics was not offered in high school. This theory, however, is most plausible for women because athletics for girls is just becoming popular in Kansas high schools.

The variable of enjoyment of physical education was very interesting. A greater percentage of men and women reporting they did not enjoy physical education attempted and passed the quiz out. This finding suggests that those students disliking physical education applied greater effort toward passing the quiz out examination than those enjoying the subject.

The results of the type of high school attended were varied. For men the highest percentage attempting and passing were from the city parochial schools and the highest percentage attempting and failing were from the city public schools. The reverse of these findings were reported for

the women subjects. No explanation is offered for this finding.

With regard to the variable of ability in physical education the largest number of men reported themselves to be above average in physical education. This group had the lowest percentage quiz out of the course. Men who reported being below average had the greatest percentage quiz out. This indicates that individuals of lower ability dislike physical activity and, therefore, tried hardest to pass the proficiency examination. The results for the women subjects, however, indicated no difference existed between the scores of the average, above average, or below average group.

Summary

The findings of this study indicated significant results existed in the catharsis and ascetic domains for men and the pursuit of vertigo, ascetic, and social domains for women. Examination of the crosstabulation results indicated differences between men and women existed in the variables of graduating class size, semesters of physical education, type of high school attended, and ability in physical education. Similarities between male and female scores were indicated by the variables of age, community size, intramural participation, interscholastic sport participation, and enjoyment of physical education. No important difference existed between the scores of men and women in the variable of home town type.

Chapter 5

SUMMARY AND CONCLUSIONS

The purpose of this study was to determine the attitudes toward physical activity of students enrolled in a basic physical education class. More specifically, it was first to determine the attitudes of three groups of students enrolled in the basic physical education class and second to compare these groups to information variables.

Students were divided into three groups of subjects according to their decision regarding the proficiency examination. These included students who: (1) attempted the proficiency examination and passed, and (2) attempted the examination but failed, and (3) chose to complete the course without attempting the examination.

The testing instrument was a two part test consisting of Kenyon's Attitude Toward Physical Activity Scale and an information questionnaire.

An analysis of variance test was computed between the six subdomains and the three groups. To determine the significant difference between the group responses, Duncan's Multiple Range Tests were computed. The .05 level of significance was employed. A crosstabulation of the information variables and the three groups was also computed.

The results indicated that significant differences existed between the male ascetic and catharsis subdomains in the analysis of variance computations. For women, significant differences were revealed between the pursuit of vertigo, ascetic, and social subdomains. Certain background factors were also found which appeared to influence the outcome of the

study for both men and women. However, the influencing factors varied between the sexes.

CONCLUSIONS

On the basis of the results of this study, the following conclusions can be drawn:

1. Among male college students those who do not attempt to quiz out of Concepts of Physical Education have a more positive attitude toward physical activity.
2. Among male college students those who attempt and pass the Concepts of Physical Education proficiency examination have a poorer attitude toward physical activity.
3. Among female college students those who do not attempt to quiz out of Concepts of Physical Education have a more positive attitude toward physical activity.
4. Among female college students those who attempt and pass the Concepts of Physical Education proficiency examination have a poorer attitude toward physical activity.
5. Generally speaking, male college students who attempt and pass the Concepts of Physical Education proficiency examination are characterized as being someone from a smaller sized community, from a high school graduating class of from 100-199, had 1 or 2 semesters of high school physical education, was not interested in participating in intramurals, did not participate in interscholastic sports competition, does not enjoy physical education, attended a city parochial school, and is below average in physical ability.

6. Generally speaking, female college students who attempt and pass the Concepts of Physical Education proficiency examination are characterized as being someone from a medium sized community, from a high school graduating class of from 100-199, had 3 or 4 semesters of physical education, was not interested in participating in intramurals, did not participate in interscholastic sports competition, does not enjoy physical education, and is average in physical ability.
7. It would appear that students attempting and passing the proficiency examination are the ones who dislike physical activity and could benefit from the class the most.

RECOMMENDATIONS FOR FURTHER STUDIES

The following topics are recommended for further studies of attitudes:

1. Research is needed to determine when attitudes concerning the subdomains are established.
2. Research is needed to determine the attitudes of children in grade school using each one of the subdomains of the scale independently.
3. Research is needed to compare the attitudes of physical education majors to non-majors using the Attitude Toward Physical Activity Scale developed by Kenyon.

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APPENDIX A: ATPA Scale Form DM (Men)

INTRODUCTION

The following is part of a research project designed to ascertain the opinions of college students about certain aspects of our society. The statements on the pages that follow are concerned with physical activity. We are asking you to express what you think or feel about each. The best answer is YOUR PERSONAL OPINION. Many different and opposing points of view are presented; you may find yourself agreeing with some of the statements and disagreeing just as strongly with others.

INSTRUCTIONS

1. Express your agreement or disagreement by circling the appropriate symbols on the answer sheet, according to the following:

VSA: Very Strongly Agree	D: Disagree
SA: Strongly Agree	SD: Strongly Disagree
A: Agree	VSD: Very Strongly Disagree
U: Undecided	

FOR EXAMPLE, IF YOU STRONGLY DISAGREE WITH A STATEMENT YOU CIRCLE THE SYMBOL SD AS FOLLOWS:

VSA SA A U D SD VSD A. The United Nations should be abolished.

2. You should rarely need to use U (undecided).
3. Work independently of others.
4. Do not spend too much time on any one statement; try to respond, then go on to the next page.
5. Respond to ALL statements.

IMPORTANT

1. Respond to the statements IN THE ORDER GIVEN. (Do not go on to page 2 until you have finished page 1, etc.).
2. The significance of this research depends upon the degree to which you express YOUR OWN OPINION.

Form DM (MEN)

1. I would gladly put in the necessary years of daily hard training for the chance to try out for the U.S. Olympic Team.
2. I would prefer quiet activities like swimming or tossing a ball around rather than such activities as automobile or speedboat racing.
3. Among desirable forms of physical activity are those that show the beauty and form of human movement, such as modern dance and water ballet.
4. I prefer those sports which require very hard training and involve intense competition such as interscholastic and intercollegiate athletics.
5. A happy life does not require regular participation in physical activity.
6. The risk of injury would be well worth it when you consider the thrills that come from engaging in such activities as mountain climbing and bobsledding.
7. It is important that everyone belong to at least one group that plays games together.
8. Of all physical activities, those whose purpose is primarily to develop physical fitness, would not be my first choice.
9. Among the best physical activities are those which represent a personal challenge, such as skiing, mountain climbing, or heavy weather sailing.
10. I would get by far more satisfaction from games requiring long and careful preparation and involving stiff competition against a strong opposition.
11. The degree of beauty and grace of movement found in sports is sometimes less than claimed.
12. Almost the only satisfactory way to relieve severe emotional strain is through some form of physical activity.
13. I would usually choose strenuous physical activity over light physical activity, if given the choice.
14. Physical education programs should place a little more emphasis upon the beauty found in human motion.
15. There are better ways of relieving the pressures of today's living than having to engage in or watch physical activity.

16. Frequent participation in dangerous sports and physical activities are all right for other people but ordinarily they are not for me.
17. I like to engage in socially oriented physical activities.
18. A large part of our daily lives must be committed to vigorous exercise.
19. I am not the least interested in those physical activities whose sole purpose is to depict human motion as something beautiful.
20. Colleges should sponsor many more physical activities of a social nature.
21. Being strong and highly fit is not the most important thing in my life.
22. The least desirable physical activities are those providing a sense of danger and risk of injury such as skiing on steep slopes, mountain climbing, or parachute jumping.
23. For a healthy mind in a healthy body the only place to begin is through participation in sports and physical activities every day.
24. A sport is sometimes spoiled if allowed to become too highly organized and keenly competitive.
25. The time spent doing daily calisthenics should probably be used more profitably in other ways.
26. I enjoy sports mostly because they give me a chance to meet new people.
27. Practically the only way to relieve frustrations and pent-up emotions is through some form of physical activity.
28. Given a choice, I would prefer motor boat racing or running rapids in a canoe rather than one of the quieter forms of boating.
29. Strength and physical stamina are the most important pre-requisites to a full life.
30. Of all the kinds of physical activities, I dislike the most those requiring a lot of socializing.
31. The most enjoyable forms of physical activity are games and sports engaged in on the spur of the moment, rather than those requiring long periods of training.
32. One of the things I like most in sports is the great variety of ways human movement can be shown to be beautiful.
33. Most intellectual activities are often just as refreshing as physical activities.
34. Physical activities that are purely for social purposes, like college dances, are sometimes a waste of time.

35. I am given great pleasure when I see the form and beauty of human motion.
36. I believe calisthenics are among the less desirable forms of physical activity.
37. The self-denial and sacrifice needed for success in today's international competition may soon become too much to ask of a thirteen or fourteen year old.
38. People should spend twenty to thirty minutes a day doing vigorous calisthenics.
39. Too much attention is paid to those physical activities that try to portray human movement as an art form.
40. Sports are fun to watch and to engage in, only if they are not taken too seriously, nor demand too much time and energy.
41. Of all physical activities, my first choice would be those whose purpose is primarily to develop and maintain physical fitness.
42. If I had to choose between "still-water" canoeing and "rapids" canoeing, "still-water" canoeing would be the better alternative.
43. Watching athletes becoming completely absorbed in their sport nearly always provides me with a welcome escape from the many demands of present-day life.
44. Participating in games and sports can sometimes spoil good friendships.
45. The idea that every human movement is beautiful is absurd.
46. Physical activities having a strong element of daring or requiring one to take chances are highly desirable.
47. I could easily spend an hour watching the graceful and well coordinated movements of a figure skater or modern dancer.
48. There are better ways of getting to know people than through games and sports
49. The fun is sometimes taken out of sports and games when they become too highly organized, overly competitive, and too demanding of the participant.
50. Among the best forms of physical activity are those which use the body as an instrument of expression.
51. Since competition is fundamental to American society, sports and athletics need to be much more demanding and competitive than at present.

52. The best thing about games and sports is that they give people confidence in social situations.
53. One of the best forms of physical activity is that which provides a thrilling sense of danger such as sailing in heavy weather or canoeing on river rapids.
54. Regular physical activity is the major pre-requisite to a satisfying life.
55. Vigorous daily exercises are absolutely necessary to maintain one's general health.
56. One of the most desirable forms of physical activity is social dancing.
57. In this country there is sometimes too much emphasis on striving to be successful in sports.
58. I would enjoy engaging in those games and sports requiring, to a large extent, the defiance of danger.
59. Most people could live happy lives without depending upon frequent watching or participating in physical games and exercise.

BACKGROUND INFORMATION

Directions: Circle the letter on the answer sheet which best represents your situation.

1. Sex?
 - A. Male
 - B. Female
2. Age?
 - A. 18 or younger
 - B. 19
 - C. 20
 - D. 21
 - E. 22 or older
3. I am from Kansas?
 - A. Yes
 - B. No
4. Size of community I was raised in or around?
 - A. 1,999 or smaller
 - B. 2,000 to 3,999
 - C. 4,000 to 5,999
 - D. 6,000 to 9,999
 - E. 10,000 or larger
5. While growing up I lived mainly?
 - A. On a farm
 - B. In the country, but not on a farm
 - C. In the suburbs
 - D. In the city
6. Size of graduating class?
 - A. Below 50
 - B. 50-99
 - C. 100-199
 - D. 200-299
 - E. Above 300
7. Type of high school?
 - A. Rural - Public
 - B. Rural - Parochial
 - C. City - Public
 - D. City - Parochial
 - E. Other
8. I am planning on becoming a teacher after graduation?
 - A. Yes
 - B. No

9. Physical education was offered in high school?
 - A. Yes
 - B. No
10. Number of semesters taken of physical education in high school?
 - A. None
 - B. 1 or 2
 - C. 3 or 4
 - D. 5 or 6
 - E. 7 or more
11. My physical education teacher in high school was?
 - A. A man
 - B. A women
 - C. Both
12. In high school physical education I took physical fitness tests?
 - A. Yes
 - B. No
13. Intramurals was offered in high school?
 - A. Yes
 - B. No
14. Amount of participation in intramurals?
 - A. Never - Wasn't offered
 - B. Never - Wasn't interested
 - C. Participated - Occasionally
 - D. Participated - Frequently
 - E. Never - Out for athletics
15. I participated in interscholastic sports?
 - A. Yes
 - B. No
16. I earned a letter in interscholastic sports?
 - A. Yes
 - B. No
17. I enjoy physical education?
 - A. Yes
 - B. No
18. I consider myself in physical education to be?
 - A. Average
 - B. Above average
 - C. Below average

STUDENTS ATTEMPTING TO QUIZ OUT ANSWER QUESTION 19 ONLY. STUDENTS NOT ATTEMPTING TO QUIZ OUT ANSWER 20 ONLY.

19. I am attempting to quiz out of concepts because?
- A. I dislike physical education
 - B. I am carrying a heavy load of classes
 - C. To speed up my academic advancement
 - D. I already had the information in high school
 - E. Other
20. I did not attempt to quiz out of concepts because?
- A. I am interested in taking the course
 - B. Too much work
 - C. Wasn't aware I could quiz out
 - D. Didn't think I could pass the quiz out exam
 - E. Other

ATPA SCALES: FORM DM-MEN

ANSWER SHEET

1. VSA SA A U D SD VSD
 2. VSA SA A U D SD VSD
 3. VSA SA A U D SD VSD
 4. VSA SA A U D SD VSD
 5. VSA SA A U D SD VSD
 6. VSA SA A U D SD VSD
 7. VSA SA A U D SD VSD
 8. VSA SA A U D SD VSD
 9. VSA SA A U D SD VSD
 10. VSA SA A U D SD VSD
 11. VSA SA A U D SD VSD
 12. VSA SA A U D SD VSD
 13. VSA SA A U D SD VSD
 14. VSA SA A U D SD VSD
 15. VSA SA A U D SD VSD
 16. VSA SA A U D SD VSD
 17. VSA SA A U D SD VSD
 18. VSA SA A U D SD VSD
 19. VSA SA A U D SD VSD
 20. VSA SA A U D SD VSD
 21. VSA SA A U D SD VSD
 22. VSA SA A U D SD VSD
 23. VSA SA A U D SD VSD
 24. VSA SA A U D SD VSD
 25. VSA SA A U D SD VSD
 26. VSA SA A U D SD VSD
 27. VSA SA A U D SD VSD
 28. VSA SA A U D SD VSD
 29. VSA SA A U D SD VSD
 30. VSA SA A U D SD VSD
 31. VSA SA A U D SD VSD
 32. VSA SA A U D SD VSD
 33. VSA SA A U D SD VSD
 34. VSA SA A U D SD VSD
 35. VSA SA A U D SD VSD
 36. VSA SA A U D SD VSD
 37. VSA SA A U D SD VSD
 38. VSA SA A U D SD VSD
 39. VSA SA A U D SD VSD
 40. VSA SA A U D SD VSD
 41. VSA SA A U D SD VSD
 42. VSA SA A U D SD VSD
 43. VSA SA A U D SD VSD
 44. VSA SA A U D SD VSD
 45. VSA SA A U D SD VSD
 46. VSA SA A U D SD VSD
 47. VSA SA A U D SD VSD
 48. VSA SA A U D SD VSD
 49. VSA SA A U D SD VSD

50. VSA SA A U D SD VSD
 51. VSA SA A U D SD VSD
 52. VSA SA A U D SD VSD
 53. VSA SA A U D SD VSD
 54. VSA SA A U D SD VSD
 55. VSA SA A U D SD VSD
 56. VSA SA A U D SD VSD
 57. VSA SA A U D SD VSD
 58. VSA SA A U D SD VSD
 59. VSA SA A U D SD VSD

BACKGROUND INFORMATION

1. A B C D E
 2. A B C D E
 3. A B C D E
 4. A B C D E
 5. A B C D E
 6. A B C D E
 7. A B C D E
 8. A B C D E
 9. A B C D E
 10. A B C D E
 11. A B C D E
 12. A B C D E
 13. A B C D E
 14. A B C D E
 15. A B C D E
 16. A B C D E
 17. A B C D E
 18. A B C D E
 19. A B C D E
 20. A B C D E

APPENDIX B: ATPA Scale Form DW (Women)

INTRODUCTION

The following is part of a research project designed to ascertain the opinions of college students about certain aspects of our society. The statements on the pages that follow are concerned with physical activity. We are asking you to express what you think or feel about each. The best answer is YOUR PERSONAL OPINION. Many different and opposing points of view are presented; you may find yourself agreeing with some of the statements and disagreeing just as strongly with others.

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SA: Strongly Agree	SD: Strongly Disagree
A: Agree	VSD: Very Strongly Disagree
U: Undecided	

FOR EXAMPLE, IF YOU STRONGLY DISAGREE WITH A STATEMENT YOU CIRCLE THE SYMBOL SD AS FOLLOWS:

VSA SA A U D SD VSD A. The United Nations should be abolished.

2. You should rarely need to use U (undecided).
3. Work independently of others.
4. Do not spend too much time on any one statement; try to respond, then go on to the next.
5. Respond to ALL statements.

IMPORTANT

1. Respond to the statements IN THE ORDER GIVEN. (Do not go on to page 2 until you have finished page 1, etc.).
2. The significance of this research depends upon the degree to which you express YOUR OWN OPINION.

**THIS BOOK
CONTAINS
NUMEROUS PAGES
THAT ARE BLURRY
DUE TO DOUBLE
PRINTING IN THE
TEXT.**

**THIS IS AS
RECEIVED FROM
THE CUSTOMER.**

~~From~~ DW (WOMEN)

1. I would prefer quiet activities like swimming or golf, rather than such activities as water ~~skiing~~ or sail boat racing.
2. I would gladly put up with the hard training necessary for the chance to try out for the U.S. Olympic team.
3. The most important value of physical activity is the beauty found in skilled movement.
4. Physical education programs stress vigorous exercise since it contributes most to physical fitness.
5. The years of strenuous daily training necessary to prepare for today's international competition is asking alot of today's young women.
6. The need for much higher levels of physical fitness has been established beyond all doubt.
7. Among the best physical activities are those which represent a personal challenge, such as skiing, mountain climbing, or heavy weather sailing.
8. Among the most desirable forms of physical activity are those which present the beauty of ~~human movement~~ such as modern dance and water ballet.
9. I would get by far the most satisfaction from games requiring long and careful preparation ~~and~~ involving stiff competition against a strong opposition.
10. Of all physical activities, those whose purpose is primarily to develop physical fitness, would not be my first choice.
11. The best way to become more socially desirable is to participate in group physical activities.
12. Almost the only satisfactory way to relieve severe emotional strain is through some form of physical activity.
13. Frequent participation in dangerous sports and physical activities are all right for other people but ordinarily they are not for me.
14. Physical education programs should place much more emphasis upon the beauty found in human movement.
15. If given a choice, I sometimes would choose strenuous rather than light physical activity.
16. There are better ways of relieving the pressures of today's living than having to engage in or watch physical activity.

17. I like to engage in socially oriented physical activities.
18. A part of our daily lives must be committed to vigorous exercise.
19. I am not particularly interested in those physical activities whose sole purpose is to depict human motion as something beautiful.
20. Colleges should sponsor many more physical activities of a social nature.
21. For a healthy mind in a healthy body the only place to begin is through participation in sports and physical activities every day.
22. The least desirable physical activities are those providing a sense of danger and risk of injury such as skiing on steep slopes, mountain climbing, or parachute jumping.
23. Being physically fit is not the most important goal in my life.
24. A sport is sometimes spoiled if allowed to become too highly organized and keenly competitive.
25. I enjoy sports mostly because they give me a chance to meet new people.
26. Practically the only way to relieve frustrations and pent-up emotions is through some form of physical activity.
27. The time spent doing daily calisthenics could be used more profitably in other ways.
28. Given a choice, I would prefer motor boat racing or running rapids in a canoe rather than one of the quieter forms of boating.
29. Of all the kinds of physical activities, I don't particularly care for those requiring a lot of socializing.
30. One of the things I like most in sports is the great variety of ways human movement can be shown to be beautiful.
31. Most intellectual activities are often just as refreshing as physical activities.
32. Strength and physical stamina are the most important pre-requisites to a full life.
33. Physical activities that are purely for social purposes, like college dances, are sometimes a waste of time.
34. The self-denial and sacrifice needed for success in today's international competition may soon become too much to ask of a 13 or 14 year old girl.

35. I am given unlimited pleasure when I see the form and beauty of human motion.
36. I believe calisthenics are among the less desirable forms of physical activity.
37. Watching athletes becoming completely absorbed in their sport nearly always provides me with a welcome escape from the many demands of present-day life.
38. If I had to choose between "still-water" canoeing and "rapids" canoeing, "still-water" canoeing would be my choice.
39. There are better ways of getting to know people than through games and sport.
40. People should spend twenty to thirty minutes a day doing vigorous calisthenics.
41. There is sometimes an over-emphasis upon those physical activities that attempt to portray human movement as an art form.
42. Physical activities having an element of daring or requiring one to take chances are desirable.
43. Since competition is a fundamental characteristic of American society, highly competitive athletics and games should be encouraged for all.
44. A happy life does not require regular participation in physical activity.
45. The best form of physical activity is when the body is used as an instrument of expression.
46. Sports are fun to watch and to engage in, only if they are not taken too seriously, nor demand too much time and energy.
47. Calisthenics taken regularly are among the best forms of exercise.
48. I could spend many hours watching the graceful and well coordinated movements of the figure skater or modern dancer.
49. The best thing about games and sports is that they give people more confidence in social situations.
50. Among the best forms of physical activity are those providing thrills such as sailing in heavy weather or canoeing on river rapids.
51. Regular physical activity is the major pre-requisite to a satisfying life.

52. In this country there is sometimes too much emphasis on striving to be successful in sports.
53. I would enjoy engaging in those games and sports that require a defiance of danger.
54. Most people could live happy lives without depending upon frequent watching or participating in physical games and exercises.

BACKGROUND INFORMATION

Directions: Circle the letter on the answer sheet which best represents your situation.

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 - D. 6,000 to 9,999
 - E. 10,000 or larger
5. While growing up I lived mainly?
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 - D. In the city
6. Size of graduating class?
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 - C. 100-199
 - D. 200-299
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7. Type of high school?
 - A. Rural - Public
 - B. Rural - Parochial
 - C. City - Public
 - D. City - Parochial
 - E. Other
8. I am planning on becoming a teacher after graduation?
 - A. Yes
 - B. No

9. Physical education was offered in high school?
 - A. Yes
 - B. No
10. Number of semesters taken of physical education in high school?
 - A. None
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 - C. 3 or 4
 - D. 5 or 6
 - E. 7 or more
11. My physical education teacher in high school was?
 - A. A man
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 - B. No
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 - A. Never - Wasn't offered
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 - C. Participate - Occasionally
 - D. Participated - Frequently
 - E. Never - Out for athletics
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 - A. Yes
 - B. No
16. I earned a letter in interscholastic sports?
 - A. Yes
 - B. No
17. I enjoy physical education?
 - A. Yes
 - B. No
18. I consider myself in physical education to be?
 - A. Average
 - B. Above average
 - C. Below average

STUDENTS ATTEMPTING TO QUIZ OUT ANSWER QUESTION 19 ONLY. STUDENTS NOT ATTEMPTING TO QUIZ OUT ANSWER 20 ONLY.

19. I am attempting to quiz out of concepts because?
- A. I dislike physical education
 - B. I am carrying a heavy load of classes
 - C. To speed up my academic advancement
 - D. I already had the information in high school
 - E. Other
20. I did not attempt to quiz out of concepts because?
- A. I am interested in taking the course
 - B. Too much work
 - C. Wasn't aware I could quiz out
 - D. Didn't think I could pass the quiz out exam
 - E. Other

ATPA SCALES: FORM DW-WOMEN

ANSWER SHEET

1.	VSA	SA	A	U	D	SD	VSD	45.	VSA	SA	A	U	D	SD	VSD
2.	VSA	SA	A	U	D	SD	VSD	46.	VSA	SA	A	U	D	SD	VSD
3.	VSA	SA	A	U	D	SD	VSD	47.	VSA	SA	A	U	D	SD	VSD
4.	VSA	SA	A	U	D	SD	VSD	48.	VSA	SA	A	U	D	SD	VSD
5.	VSA	SA	A	U	D	SD	VSD	49.	VSA	SA	A	U	D	SD	VSD
6.	VSA	SA	A	U	D	SD	VSD	50.	VSA	SA	A	U	D	SD	VSD
7.	VSA	SA	A	U	D	SD	VSD	51.	VSA	SA	A	U	D	SD	VSD
8.	VSA	SA	A	U	D	SD	VSD	52.	VSA	SA	A	U	D	SD	VSD
9.	VSA	SA	A	U	D	SD	VSD	53.	VSA	SA	A	U	D	SD	VSD
10.	VSA	SA	A	U	D	SD	VSD	54.	VSA	SA	A	U	D	SD	VSD
11.	VSA	SA	A	U	D	SD	VSD								
12.	VSA	SA	A	U	D	SD	VSD								
13.	VSA	SA	A	U	D	SD	VSD								
14.	VSA	SA	A	U	D	SD	VSD								
15.	VSA	SA	A	U	D	SD	VSD								
16.	VSA	SA	A	U	D	SD	VSD								
17.	VSA	SA	A	U	D	SD	VSD								
18.	VSA	SA	A	U	D	SD	VSD								
19.	VSA	SA	A	U	D	SD	VSD								
20.	VSA	SA	A	U	D	SD	VSD								
21.	VSA	SA	A	U	D	SD	VSD								
22.	VSA	SA	A	U	D	SD	VSD								
23.	VSA	SA	A	U	D	SD	VSD								
24.	VSA	SA	A	U	D	SD	VSD								
25.	VSA	SA	A	U	D	SD	VSD								
26.	VSA	SA	A	U	D	SD	VSD								
27.	VSA	SA	A	U	D	SD	VSD								
28.	VSA	SA	A	U	D	SD	VSD								
29.	VSA	SA	A	U	D	SD	VSD								
30.	VSA	SA	A	U	D	SD	VSD								
31.	VSA	SA	A	U	D	SD	VSD								
32.	VSA	SA	A	U	D	SD	VSD								
33.	VSA	SA	A	U	D	SD	VSD								
34.	VSA	SA	A	U	D	SD	VSD								
35.	VSA	SA	A	U	D	SD	VSD								
36.	VSA	SA	A	U	D	SD	VSD								
37.	VSA	SA	A	U	D	SD	VSD								
38.	VSA	SA	A	U	D	SD	VSD								
39.	VSA	SA	A	U	D	SD	VSD								
40.	VSA	SA	A	U	D	SD	VSD								
41.	VSA	SA	A	U	D	SD	VSD								
42.	VSA	SA	A	U	D	SD	VSD								
43.	VSA	SA	A	U	D	SD	VSD								
44.	VSA	SA	A	U	D	SD	VSD								

BACKGROUND INFORMATION

1.	A	B	C	D	E
2.	A	B	C	D	E
3.	A	B	C	D	E
4.	A	B	C	D	E
5.	A	B	C	D	E
6.	A	B	C	D	E
7.	A	B	C	D	E
8.	A	B	C	D	E
9.	A	B	C	D	E
10.	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E
13.	A	B	C	D	E
14.	A	B	C	D	E
15.	A	B	C	D	E
16.	A	B	C	D	E
17.	A	B	C	D	E
18.	A	B	C	D	E
19.	A	B	C	D	E
20.	A	B	C	D	E

APPENDIX C: Kenyon ATPA sore sheet for form DM (men)

VSA = 7		VSD = 7	
1, 3, 6, 7, 9, 10, 12, 13, 14, 17, 18, 20, 23, 26, 27, 28, 29, 32, 35, 38, 41, 43, 46, 47, 50, 51, 52, 53, 54, 55, 56, 58.		Others	
<hr/>			
PV	2, 6, 9, 16, 22, 28, 42, 46, 53, 58		
ASC	1, 4, 10, 24, 31, 37, 40, 49, 51, 57		
AESC	3, 11, 14, 19, 32, 35, 39, 45, 47, 50		
CATH	5, 12, 15, 23, 27, 33, 43, 54, 59		
HPE	8, 13, 18, 21, 25, 29, 36, 38, 41, 55		
S	7, 17, 20, 26, 30, 34, 44, 48, 52, 56		

APPENDIX D: Kenyon ATPA score sheet for form DW (women)

VSA = 7	VSD = 7
2, 3, 4, 6, 7, 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 25, 26, 28 30, 32, 35, 37 40, 42, 43, 45, 47, 48, 49 50, 51, 53.	Others

PV	1, 7, 13, 22, 28, 38, 42, 50, 53
ASC	2, 5, 9, 24, 34, 43, 46, 52
AESC	3, 8, 14, 19, 30, 35, 41, 45, 48
CATH	12, 16, 21, 26, 31, 37, 44, 51, 54
HPE	4, 6, 10, 15, 18, 23, 27, 32, 36, 40, 47
S	11, 17, 20, 25, 29, 33, 39, 49

ATTITUDES TOWARD PHYSICAL ACTIVITY
OF FRESHMAN MEN AND WOMEN

by

CHERYL ANN HOLDER

B.S., Kansas State University, 1972

AN ABSTRACT OF A MASTER'S THESIS

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The purpose of this study was two-fold. The first purpose was to determine the attitudes toward physical activity of three groups of students enrolled in a basic physical education class and the second purpose was to compare students passing the quiz out to those who failed on background variables. The 528 students participating in this study were assigned to groups according to their decision concerning the Concepts of Physical Education proficiency examination. The three groups included: (1) those attempting the proficiency examination and passing, (2) those attempting the examination but failing, and (3) those not attempting the examination. The testing instrument employed was a two part test consisting of the Attitude Toward Physical Activity Scale developed by Kenyon and an information questionnaire. An analysis of variance was calculated to compare the mean attitudes of the three groups of subjects. Mean differences between these variables were compared with Duncan's Multiple Range Tests when F was significant at the .05 level. A crosstabulation of the three groups of subjects and the information variables was also computed. All scores were analyzed for both men and women. Results indicated that certain background factors influenced the outcome of the study. Significant differences existed between the three groups on the ascetic and catharsis subdomains (men) and the pursuit of vertigo, ascetic, and social subdomains (women). Upon the basis of these results it can be concluded that students who attempt and pass the proficiency examination are the ones who dislike physical activity and could benefit from the class the most.