

ATTITUDES OF FRESHMEN MEN STUDENTS TOWARD  
PHYSICAL EDUCATION AT OREGON TECHNICAL INSTITUTE

by

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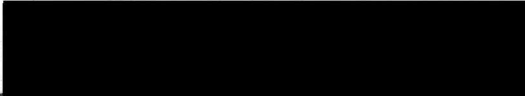
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To Dr. Robert W. Bergstrom, my major professor, I wish to express my appreciation for his advice and thoughtful guidance during the development of this study.

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# ATTITUDES OF FRESHMEN MEN STUDENTS TOWARD PHYSICAL EDUCATION AT OREGON TECHNICAL INSTITUTE

## CHAPTER I

### INTRODUCTION

This study attempts to assess the attitudes of young men enrolling in a technical school toward physical education activities. Despite the known limitations which must be considered in this type of measurement, it was felt that an analysis of students' attitudes would provide a valuable aid in determining the type and amount of their voluntary physical activity participation.

An attitude can be defined as a predisposition to react a certain way in a given situation. Attitudes are conditioned by experience, and these emotionalized feelings affect the way in which an individual responds to a given stimulus. They are an integral part of the state of readiness of an individual. The fact that one's attitudes, his feelings for or against something, influence the way he reacts makes the consideration of attitudes important from an educational outlook.

Background for the Study. The development of an intramural and physical education program in the ten-year history of Oregon Technical Institute has proven difficult. During the early years of the school the physical education program consisted of intramural sports activities only.

The regular curriculum of the school made no provision for instructional physical education classes. The early intramural sports programs included basketball, flag football, table tennis, volleyball, bowling, softball, horseshoes and indoor rifle range.

Intramural sports participation increased each year until 1953, when it was decided that the class basis of competition was unsatisfactory due to poor means of communication between the physical education department and the students. The basis of competition was then changed to living quarters. Although the number of students participating increased, the percentage of total students enrolled who participated dropped off sharply.

The physical education department encouraged intramural sports competition and participation between living quarters through 1953 and 1954, but the response was disheartening. Intramural managers were carefully selected in each dormitory to aid in creating interest. Bulletin boards in each entrance hallway carried roster forms.

In 1955 the class basis of competition was restored. This change brought about no perceptible gain in number of participants. This method proved to be unsatisfactory due mainly to the above mentioned inadequate means of communication. Bulletin boards placed in selected spots were



soon over-loaded with posters, announcements, and other information that had no reference to the purpose for which the boards were intended. Although the school paper carried intramural sports information, this procedure did not assist the program greatly since the paper was published only once each month. Because instructors often failed to read or to post daily announcement sheets, this method was not helpful in promoting participation.

In 1956, physical education was included in the curriculum with the granting of one credit for completing one term's work. Physical education instruction was not required, but it was offered on an elective basis. At this same time the basis of participation in the intramural sports program was returned to the living quarters. The resulting enrollment in the physical education classes was only 16 out of the total enrollment of 1123 men students. No proportionate increase in intramural activity participation was registered.

The continued discouraging results noted above would seem to indicate that perhaps technical students are not the type of individuals who desire physical activity. In other words, do the students who enroll in a technical school differ from students attending other universities and colleges in their attitudes toward physical activity?

It was felt that herein might be the answer as to why the students at the Oregon Technical Institute displayed a lukewarm interest in physical education activities.

Records were first kept in 1950 of student participation in physical education activities at Oregon Technical Institute. Prior to this time the enrollment at the school was small and physical education activities were unorganized.

The figures in Table I show that the smallest percentage of total enrollment participating in physical education activities occurred in 1950. The highest percentage of total enrollment participating in physical education activities occurred in 1953. From 1953 to 1956 the percentage of total enrollment participation dropped to 30 per cent from the high of 68 per cent.

TABLE I

PHYSICAL ACTIVITIES PARTICIPATION IN  
RELATION TO ENROLLMENT (MEN)

Year	En- roll- ment	Total Par- tici- pa- tion	Per- cent of Total En- roll- ment	CROSS COUNTRY	FLAG FOOTBALL	BASKET BALL	BOWLING	TABLE TENNIS	FOUL THROWING	BADMINTON	VOLLEYBALL	GOLF	HORSESHOES	SOFTBALL
1950	978	199	20%	N*	28	81	N	12	18	N	44	N	4	12
1951	999	206	20%	N	30	73	N	4	23	N	52	N	12	12
1952	776	329	42%	N	54	77	84	4	12	N	58	N	16	24
1953	722	494	68%	6	66	88	101	22	31	8	62	N	18	92
1954	780	323	41%	4	N	54	70	16	33	4	41	3	12	86
1955	998	324	32%	4	48	57	67	26	38	6	12	3	4	59
1956	1123	336	30%	5	42	62	74	22	30	14	16	5	4	62

\*N not offered

Since the early beginnings of Oregon Technical Institute, facilities have been improved and remodeled. Facilities now include a large gymnasium carefully located on the campus, which provides ample dressing and shower facilities for students. Two cross courts are marked for basketball on the main basketball court. This indoor area is marked with two badminton and two volleyball courts which can be used simultaneously. A six lane bowling alley is located in conjunction with the gymnasium. Directly behind the gymnasium are located



four horseshoe pits. A turf recreation field lies adjacent to the gymnasium which serves also as a practice field for the football team. The field is used also for intramural football and softball. An acceptable quarter mile cinder track runs around the field.

Purpose of the Study. The purposes of this study are (1) to analyze the attitudes toward physical education of freshmen men students entering Oregon Technical Institute and (2) to make recommendations regarding the present physical education program at the school in the light of these attitudes.

Administration of the Test. The Wear Physical Education Attitude Inventory was administered to 403 freshmen men students entering Oregon Technical Institute in the fall term of 1956. Permission was secured from the director of the school to administer the inventory during the time the regular testing program was given to the entering freshmen. Personnel from the office of the Dean of Students presented the Wear Inventory to 17 groups of 25 students each. Care was taken to inform the freshmen that the school was interested only in how each felt about the statements in the inventory. Students were told that no reference was intended in any statement to interscholastic or intramural athletics. Since there are no right or wrong answers to the inventory, each

student was asked to check in one of the five areas provided and to proceed to the next statement.

Printed directions for the students to follow in answering the statements on the inventory were given on the lead page in the following manner:

"Directions: Please Read Carefully: Below, you will find some statements about physical education. We would like to know how you feel about each statement. You are asked to consider physical education only from the standpoint of its place as an activity course taught during a regular class period. No reference is intended in any statement to interscholastic or intramural athletics. People differ widely in the way they feel about each statement. There are no right or wrong answers.

"You have been provided with a separate answer sheet for recording your reaction to each statement. (a) Read each statement carefully, (b) go to the answer sheet, and (c) opposite the number of the statement place an "x" in the square which is under the word (or words) which best expresses your feeling about the statement. After reading a statement you will know at once, in most cases, whether you agree or disagree with the statement. If you agree, then decide whether to place an "x" under "agree" or "strongly agree". If you disagree, then decide whether to place the "x" under "disagree" or "strongly disagree". In case you are undecided (or neutral) concerning your feeling about the statement then place an "x" under "undecided". Try to avoid placing an "x" under "undecided" in very many instances.

"Wherever possible, let your own personal experience determine your answer. Work rapidly, do not spend much time on any statement. This is not a test, but is simply a survey to determine how people feel about physical education. Your answers will in no way affect your grade in any course. In fact, we are not interested in connecting any person with any paper--so please answer each statement as you actually feel about it. Be sure to answer every statement."



The students were given the opportunity to ask questions. The students were then told to check the inventory. Students were given twelve minutes to complete it. At the end of the allotted time the papers were picked up and the students went on with regular entrance examinations.

The testing was carried on over a three day period involving 17 sessions. The results were then compiled into four categories: social health, physical health, mental health, and unclassified items. Results were transferred from the inventory answer sheets to master scoring cards in accordance with each statement and under the proper category.

The 40 statements in the Wear Attitude Inventory were classified into three areas--social health, physical health, and mental health. Ten statements are in the category of social health. Eight statements are in the category of physical health and nine statements cover mental health. Thirteen statements in the inventory do not fall into these classifications and are placed in an unclassified category for this study. Approximately one-half of the items in the inventory are worded negatively in order to counteract any suggestive effect which an all-positive list might have on the students' responses to the items. There are five possible responses to



to each inventory statement: strongly agree, agree, undecided, disagree, and strongly disagree.

Limitations of the Study. To draw conclusions from an attitude inventory of this nature it is necessary to bear in mind the following.

1. The tabulations may not be conclusive for the entire student population in view of the number of responses involved. The responses from this study represent a cross-section of the physical education attitudes of young men enrolling in one technical school.

2. Students coming from secondary schools which offer a minimum program of physical education may show an indifferent attitude toward physical education.

3. In filling out the inventory, the student might report a favorable attitude toward physical education and see no purpose in participating personally in a physical education program. A student could feel that the physical activities were for others and not for him.

4. It is possible that some students may misinterpret negatively worded statements.

5. The inventory does not provide information regarding the past experience in physical education of the student. It seems rather obvious that experience with excellent activity programs would aid in establishing favorable attitudes toward physical education. This

study would benefit from information about previous student experiences with physical education. On the other hand, regardless of how acquired, the attitudes expressed by entering students are of value in the consideration of future plans for physical education at Oregon Technical Institute.

## CHAPTER II

## THE WEAR PHYSICAL EDUCATION ATTITUDE INVENTORY

The Wear Physical Education Attitude Inventory was chosen to be administered to freshmen students entering Oregon Technical Institute because it was felt that this inventory would make a reliable assessment of the direction and intensity of individual attitudes toward physical education as an activity course. This chapter discusses the steps employed in the development of the Wear Inventory. Other inventories might have been selected but each of these posed certain problems which eliminated them from this study.

A study was made of McCloy's Behavior Rating Scale (5, p.41). McCloy's scale was organized under nine general headings regarding objectives sought in character development. Thirty-seven items are rated. O'Neal made an experimental study (7, p.67) of behavior traits based on McCloy's original list, and to this list he added other traits making a total of 50 items. The rating items finally selected have a low reliability and the proposed scale is not a reliable measure of character. A critical analysis of the McCloy Behavior Rating Scale was made by Blanchard (2, p.56) in which he modified the original trait actions and proposed a new rating scale which included the nine general headings but only 24 items.

A type of behavior rating scale, such as McCloy's



depends for reliability upon the rater's knowledge of the individuals being rated. For this reason such a rating scale would not be an effective instrument for determining attitudes of freshmen men students at Oregon Technical Institute.

In 1955 the Wear Physical Education Attitude Inventory was used to determine the attitudes of freshmen women students toward physical education as an activity course at the University of Washington (3 p.379). The conclusions obtained from the administration of the Wear Inventory indicate the inventory to be a reliable and valid instrument.

The Wear Inventory was used with women in the same manner at the University of Michigan (1 p.379) with one modification. The 40 statements in the inventory were categorized into three areas of social health, mental health, and physical health. Thirteen remaining statements were unclassified. The conclusions gave further evidence of the reliability and validity of the Wear Inventory as a measure of attitudes toward physical education.

Validity of the Inventory. The validity of the Wear Inventory rests largely on logical foundations. Some statistical evidence is given in support of the validity of the instrument. Efforts were made by Wear

(10 p.114) to secure a valid instrument by the following means:

- (a) The attitude object was defined and an attempt was made to give the key-concept approximately the same meaning for all subjects
- (b) A wide sampling of accepted objectives was employed
- (c) A method which has been rather widely accepted and used by psychologists and sociologists in attitude studies was employed
- (d) An attempt was made to construct the statements in such a manner that they would be clear and unambiguous
- (e) Statements which ranked highest in power to differentiate between extreme groups were retained in a short form of the instrument
- (f) Scores were compared with results obtained from the use of a graphic self-rating scale
- (g) Personal data were secured from each individual regarding some of his present likes and dislikes and some of his past experiences with physical education and athletics which might presumably affect or reflect attitude toward physical education
- (h) The power of the instrument to differentiate between opposing groups was investigated

Methods of Scoring. Most of the attitude studies in physical education during the past twenty years have been of the questionnaire type in which subjects checked likes or dislikes of activities, features of the program, or certain administrative practices. Wear (10 p.115) decided to attempt evaluation of attitudes by presenting statements and asking the subjects to respond to each statement by selecting one of five choices: strongly agree, agree, undecided, disagree, strongly disagree.



Selection of Inventory Items. As the first step in the formulation and selection of statements to be used, Wear reviewed the outcomes which physical education seeks. There seems to be rather general agreement among authorities that the outcomes sought by physical education have to do with (a) physical well-being, (b) muscular strength and coordination, (c) total physical and muscular endurance, (d) acquisition of neuromuscular skills, (e) resources for recreation, for use of leisure-time now and in later life, (f) mental health, emotional control and poise, (g) social relationships, and (h) safety aspects, providing for better control of body and better use of safety measures (10 p.116).

After an analysis of the outcomes which are sought, Wear began the formulation and selection of statements which might represent verbal expressions of feeling concerning the value of these outcomes and the extent to which physical education was believed to bring about their attainment. Graduate and undergraduate physical education classes were asked by Wear to suggest (a) statements reflecting their own feelings, (b) statements which they had heard others make, and (c) statements which they thought other individuals both favorable to and opposed to physical education might make. Many books and periodical articles also were examined for suggestions.



These procedures resulted in Wear formulating a list of 289 statements for consideration in the inventory. (10 p.116).

Next came the work of revising and eliminating statements.. As a guide in this work, Wear used the following criteria (10 p.116):

- a. An attitude statement must be debatable and not a statement of fact
- b. All statements should belong to the same attitude variable
- c. A statement must not be susceptible to more than one interpretation
- d. Avoid double-barreled statements
- e. Statements should be short
- f. Each statement should be complete in denoting a definite attitude toward a specific issue
- g. Each statement should contain only one complete thought
- h. Avoid grouping two or more complete sentences as one attitude statement
- i. Statements should be clear-cut and direct
- j. Use with care and moderation such words as only, mere, just, merely, and others
- k. Avoid colorless expressions or statements lacking effect
- l. Whenever possible, write in the form of a simple instead of compound or complex sentence
- m. Use a complex rather than a compound sentence
- n. It is usually better to use active rather than passive voice
- o. In general use the term of the issue as the subject of the sentence
- p. Avoid high-sounding words, uncommon words or expressions, and technical terms not ordinarily understood

Wear made no attempt to allocate any specific number of statements to the areas suggested by the outcomes mentioned above, although statements were formulated for

each area. The editing resulted in a tentative list of 122 statements or items (10 p.117). As a result of analysis of responses from a preliminary try-out of these items on 75 college students, which included an item analysis of the 122 items, several items were dropped and a few new ones were added. The revised list, which now contained 120 items, was called the Physical Education Attitude Inventory (10 p.117).

Approximately one-half of the items were worded negatively. The purpose of this was to counteract any suggestive effect which an all-positive list might have on the subjects responding to the items.

The Inventory was then given by Wear to the classes in required physical education for men at the State University of Iowa at the beginning of the first semester of the 1949-50 school year. Each student was asked to (a) fill out a one-page questionnaire concerning some of his past experiences with physical education, including some of his likes and dislikes, (b) mark one of the five possible responses for each of the 120 items of the Inventory, and (c) rate himself on a nine-point graphic rating scale concerning his general attitude toward physical education as defined.

Responses were secured from 494 men students. This was an unselected sampling of the total number of less

than 600 students in the required program. Twenty-two of the papers had omissions in the inventory section or indicated obvious non-cooperation. The reliability of the inventory as determined by the split-halves technique was .96 for 472 cases which became .98 when raised by the Spearman-Brown formula (10 p.118). The product moment correlation between inventory scores and graphic self ratings for the 464 individuals who rated themselves was .80 (10 p.118).

Wear removed 200 papers at random from the 472, and these were set aside for use in checking a short form that was to be derived from the data of the remaining 272 papers. Product moment correlation coefficients were computed to express the relationships between inventory scores and scores made on the multiple-choice items of the questionnaire. The coefficients indicate that a significant relationship, although low in most instances, exists in every case, except for the number of years taken in high school. The items on the questionnaire having a correlation of .40 or better with total inventory scores were as follows:

- a. How important do you consider physical activity time as a part of your personal recreation program? ( $r = .64$ )
- b. If you did not take physical education in high school, do you think you would have liked it? ( $r = .56$ )



- c. To what extent do you like to participate in sports activities? ( $r = .48$ )
- d. If you took physical education as an activity subject during school hours in high school, did you like it? ( $r = .46$ )

Wear made an analysis of the extent to which scores tended to differentiate between groups which had undergone different physical education programs, or which held to different feelings or practices as indicated by responses to the questionnaire items. For each item, the subjects were divided into two groups on the basis of the selected responses. Mean scores for groups were computed and the significance of the differences between means of paired groups was tested by comparing the difference with its standard error. In addition to the four questions listed above, and the graphic self-rating results, data was secured on the following questions:

- a. While in high school did you actually take part in any athletic game or contest for your school against another school?
- b. If your high school had an intramural sports program, did you take part in any of the sports?
- c. If you took physical education in high school, did you like your instructor (or instructors)?
- d. How much of your leisure time do you devote to swimming, playing tennis, golf, handball, or other similar sports activities?

Inventory scores differentiated between groups at

the five per cent level of confidence on all items except one questionnaire item. This item called for the number of years of participation in physical education in high school.

Using the 272 cases, Wear secured estimates of the product moment correlation between scores on each of the 120 items and total scores on all items (8 p.384). A correlation coefficient thus obtained may be considered as representing the power of an item to discriminate between individuals who possess a favorable attitude toward physical education and those who possess an unfavorable attitude. The larger the coefficient, then the greater is the discriminative power of an item.

Selection of Test Battery. As a first step in the derivation of a short form of the inventory Wear retained 58 items which had suitable indices of discrimination between students showing favorable or unfavorable attitudes toward physical education. Inspection of these 58 items showed Wear that at least one item was retained from each of the eight areas of outcomes or objectives. He made another item analysis on the 120 items using the total scores made on the 58 selected items as the criterion scores. He found no marked rise or drop in the discrimination power of any item.

These 58 items were now examined by Wear from the



standpoint of duplication in tapping the various aspects of attitude toward physical education. Fifty-five pairs of apparently similar items were selected for examination. Using 100 papers selected at random from the 272 papers, Wear computed correlation coefficients for each pair. Although the assumptions underlying the use of tetrachoric formulas may not be strictly applicable in these situations, Wear believed that this method was the most practicable method available for securing an estimate of the degree of similarity for a large number of pairs of items. The size of the correlation coefficient which would call for the elimination of one of the items of a pair from the list of 58 items was arbitrarily set by Wear at .70. He found 21 of the pairs had coefficients of .70 or better. Wear eliminated 17 items from the inventory by this method.

Of the 41 items remaining, 24 were positive and 17 were negative. Wear dropped one of the positive items. Two other items were replaced by negative items which were not in the selected list of 58. The resulting list of 40 items was called the Short Form of the Inventory. It is referred to as the Wear Physical Attitude Inventory.



## CHAPTER III

## FINDINGS

The results of the administration of the Wear Physical Education Attitude Inventory to freshmen men students at Oregon Technical Institute are compiled in tabular form. Each table within the three categories, Social Health, Mental Health and Physical Health, including the unclassified section, presents the tabulation of the responses to each item in that area. The total responses and total percentage of responses for all the areas are compiled in one table.

Each item of the inventory was studied by comparing the number and percentage of students who checked a favorable response with the number and percentage of students who checked an unfavorable response. Comparisons are made by noting the number and percentage of responses that were favorable with those that were unfavorable.

The results compiled for each negative statement are reversed in the categorical summation. This is necessary in order to indicate the true relationship of the statement with a favorable or unfavorable attitude toward physical education.

The number of students failing to reply to statements are ignored in computing percentages of responses for each item and for the totals of the categories. All tables in

this chapter are constructed so that percentages will total 100 in the five categories of response to each item. The "no reply" column in each table is figured separately since the statement was omitted by the student and does not express an attitude for or against the item.

General Findings. The total number of responses and the total percentage of responses for each category (Social Health, Mental Health, Physical Health and the Unclassified Section) are combined to formulate a picture of the typical student in his attitude toward physical education.

TABLE II

TOTAL RESPONSES AND PERCENTAGE OF RESPONSES FOR THE CATEGORIES  
OF PHYSICAL HEALTH, SOCIAL HEALTH, MENTAL HEALTH, AND UNCLASSIFIED

CATEGORY	strongly agree		disagree		undecided		disagree		strongly disagree		no reply	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Mental Health	735	21%	2188	62%	226	6%	347	9%	56	2%	75	2%
Physical Health	948	30%	1727	56%	129	4%	251	8%	75	2%	94	3%
Social Health	746	20%	2229	58%	238	6%	555	14%	92	2%	166	4%
Unclassified	792	18%	2502	57%	245	5%	704	16%	166	4%	224	5%
TOTALS	3221	22%	8646	57%	838	6%	1857	12%	389	3%	559	4%

Note: Percentages total 100 for the five categories of response. The "no reply" column indicates the number and percentage of students who did not mark any category of the inventory.



Figures in Table II indicate that the students possess a favorable attitude toward physical education in general. Each category showed favorable responses. At the upper end of the scale 79 per cent of the students indicate favorable attitudes, including 22 per cent of the students who feel very strongly toward physical education. At the lower end of the scale 15 per cent of the students indicated an unfavorable attitude. Of those who indicated an unfavorable attitude only three per cent felt strongly against physical education.

Social Health. Of the 40 items of the inventory ten fall within this category. It is apparent from the reaction of the students as shown in Table II that this category was one with a very favorable response. Seventy-eight per cent of the students agreed with all statements in this category while only 16 per cent disagreed. One hundred sixty-six items in this category of the inventory were unscored, and 238 items were marked undecided. It would seem that the results in Table II indicate that the students would welcome opportunities in the area of social health for learning experiences wherein they could acquire social and aesthetic competences of value to the individual and the group.

Statements in the inventory that are included in the Social Health category are those numbered 2, 5, 10, 14, 17,

21, 23, 25, 26 and 37. Results for each statement are reported separately under each of the following statements.

2. Associations in physical education activities give people a better understanding of each other.

TABLE III

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 2					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
85	260	6	24	8	16
22%	69%	1%	6%	2%	4%

The responses shown in Table III present a decidedly favorable attitude, with 91 per cent of the students in agreement as against only eight per cent who are unfavorable. Of the 403 subjects, 16 failed to reply to the statement. Six students were apparently undecided as to the statement.

5. Physical education is one of the more important subjects in helping to establish and maintain desirable social standards.

TABLE IV

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 5					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
36	217	40	91	6	13
9%	56%	10%	23%	2%	3%

With 65 per cent of the subjects in agreement with



the statement in Table IV, the majority feel that physical education participation contributes to their social development. Ten per cent of the students are undecided whether taking part in physical education activities helps them or not. This may be a result of an unhappy experience or a meager background. Thirteen students failed to reply to this item.

Of some concern is that one-quarter of the subjects evidently feel that physical education is of little importance in helping to establish and to maintain desirable social standards. It could conceivably be that the indirect contributions of physical education activities in this area are not fully realized by the students. Some of the unfavorable responses could be due to a lack of understanding rather than to a definite disagreement with the statement.

10. Participation in physical education activities tends to make one a more socially desirable person.

TABLE V

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 10					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
106	224	22	30	8	13
27%	57%	5%	8%	2%	3%

Results in Table V show that the students felt very strongly that physical education activities aided in social



development. Against 84 per cent of the students showing a favorable attitude toward physical education, only ten per cent indicated disagreement. Thirteen students failed to reply while 22 students were undecided.

14. Physical education classes are poor in opportunities for worthwhile social experiences.

TABLE VI

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 14					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
9	60	53	243	35	3
2%	15%	14%	60%	9%	1%

In this negatively worded statement, Table VI shows that 69 per cent of the students reject the statement with a favorable response. Seventeen per cent of the students felt that no worthwhile experiences could be found in this area that would affect their social development. Of the 53 students who indicated they were undecided, many could have taken part in physical education activities that made little effort to contribute to the individuals through poorly handled programs. Only three students failed to reply to the statement.

17. Skill in active games or sports is not necessary for leading the fullest kind of life.

TABLE VII

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 17					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
16	192	21	127	43	4
4%	49%	5%	32%	10%	1%

The results to negative statement number 17, as shown in Table VII, tend to be fairly well distributed, with 42 per cent of the students feeling that skill is necessary in games or sports to lead the fullest kind of life. However, 53 of the subjects indicated that they didn't feel that the acquisition of skill was necessary. Twenty-one students were undecided; four students failed to reply.

21. Associating with others in some physical education activity is fun.

TABLE VIII

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 21					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
98	241	22	34	3	5
25%	60%	6%	8%	1%	1%

It is evident from the figures in Table VIII that the students are favorable to the above statement. With 85 per cent of the students feeling that it is fun to associate with others in some physical education activity, only nine per cent of the students responded unfavorably.



Of the 21 subjects indicating indecision, physical education activities may have been weak in their background to cause them to be undecided. Through illness or some other cause, the students may have been unable to take part in physical education activities, and as a result could not form a personal opinion. Within the small number of students disagreeing with the statement there may be some who have undergone an unhappy experience in physical education because of physical injury or for a psychological reason such as failure to make a team. Only five students failed to reply to the item.

23. Physical education classes provide situations for the formation of attitudes which will make one a better citizen.

TABLE IX

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 23					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
24	245	30	37	5	62
7%	72%	9%	11%	1%	13%

In the area of contribution to citizenship as shown in Table IX, students were agreed that physical education classes created good attitude situations. Seventy-nine per cent of the students agreed with the statement while 30 students were undecided. Sixty-two subjects did not reply to the statement.



25. Physical education situations are among the poorest for making friends.

TABLE X

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 25

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
16	18	7	182	151	29
4%	5%	2%	49%	40%	7%

In this negative statement, as shown in Table X, 89 per cent of the subjects are in disagreement, indicating a favorable attitude. It is significant that only nine per cent of the students felt otherwise. Twenty-nine students failed to reply to the statement and seven students were undecided.

26. Belonging to a group, for which opportunity is provided in team activities, is a desirable experience for a person.

TABLE XI

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 26

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
98	264	8	21	7	5
24%	67%	2%	5%	2%	1%

It is significant to note in Table XI that 91 per cent of the subjects indicate a favorable attitude toward group activity in physical education as a desirable experience. With this being true, it is rather clear that the

responses are favorable. Eight students were undecided, while five students failed to reply.

37. Physical education tears down sociability by encouraging people to attempt to surpass each other in many of the activities.

TABLE XII

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 37					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
14	48	29	226	70	16
3%	13%	8%	58%	18%	4%

In response to this negative statement, Table XII shows that 76 per cent of the subjects disagree with the statement and only 16 per cent of the students are in agreement with it. Twenty-nine students were undecided, while 16 students failed to reply.

Mental Health. Of the 40 items in the inventory, nine statements are in the Mental Health category. A high percentage of the students agree, as shown in Table II, that physical education activities contribute to mental health. Eighty-three per cent of the students agreed with the statements in this category, while only 11 per cent of the students reported unfavorably. No reply was received on 75 items and 226 items were marked undecided.

Statements in the category of Mental Health are numbered 4, 7, 11, 16, 20, 32, 36 and 39. Results for each



statement of the inventory in this category are reported separately in the following discussion.

4. Engaging in vigorous physical activity gets one interested in practicing good health habits.

TABLE XIII

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 4					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
91	260	13	30	3	6
23%	66%	3%	7%	1%	1%

The responses shown in Table XIII present a favorable attitude, with 89 per cent of the responses falling in the upper end of the scale and only eight per cent at the lower end of the scale. Thirteen students were undecided about the statement and only six students failed to reply.

7. Vigorous physical activity works off harmful emotional tensions.

TABLE XIV

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 7					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
101	203	24	59	12	4
25%	51%	6%	15%	3%	1%

Results shown in Table XIV indicate that the majority of the students felt that the statement was true, with 76 per cent of the responses falling at the upper end of the scale. On the lower end of the scale 18 per cent of



the students decided unfavorably. Some of the subjects who replied unfavorably to the statement may have questioned exactly what was meant by vigorous physical activity. Only four students failed to reply, while 24 students were undecided.

11. Participation in physical education makes no contribution to the development of poise.

TABLE XV

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 11					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
7	72	44	221	43	16
1%	19%	11%	58%	11%	4%

Though the majority of students reported favorably to the negative statement as shown in Table XV there was somewhat of a spread in the responses, with 69 per cent of the students being favorable and 20 per cent being unfavorable to the statement. Forty-four students were undecided as to whether physical education activity developed poise, and 16 students failed to reply.

16. A person would be better off emotionally if he did not participate in physical education.

TABLE XVI

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 16					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
7	23	15	228	128	2
1%	6%	4%	57%	32%	1%

In this negative statement, Table XVI shows that only seven per cent of the subjects feel that one would be better off emotionally if he did not take part in physical education. Eighty-nine per cent of the students were of the opinion that participation in physical education aided one emotionally. The majority of the students evidently feel that physical education activities are a good means of releasing emotions. Fifteen students remained undecided, while only two students failed to reply.

20. Developing a physical skill brings mental relaxation and relief.

TABLE XVII

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 20

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
95	269	19	14	6	0
23%	67%	5%	4%	1%	0%

The responses shown in Table XVII indicate a very favorable attitude toward the statement, with 90 per cent of the responses falling in the upper end of the scale, while 19 students remained undecided. Only five per cent of the students were unfavorable to the statement. It will be noted that all students responded to the statement.

32. Engaging in group physical education activities is desirable for proper personality development.



TABLE XVIII

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 32

strongly agree	agree	un- decided	dis- agree	strongly disagree	no reply
44	272	30	49	3	5
10%	70%	7%	12%	1%	1%

The results as shown in Table XVIII indicate a very favorable response by 80 per cent of the students. Thirteen per cent of the students expressed themselves unfavorably.. Five students failed to reply, while 30 students could not make up their minds regarding the statement.

34. Physical education activities tend to upset a person emotionally.

TABLE XIX

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 34

strongly agree	agree	un- decided	dis- agree	strongly disagree	no reply
6	35	20	246	81	15
1%	9%	6%	64%	20%	4%

Table XIX shows that 84 per cent of the students have an unfavorable attitude toward the statement. This would indicate that students feel physical education activities do not upset a person emotionally. Only ten per cent of the students felt that the statement was true. Twenty students remained undecided, and 15 students failed to reply.



36. For its contributions to mental and emotional well-being, physical education should be included in the program of every school.

TABLE XX

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 36

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
97	209	34	38	9	16
25%	54%	9%	10%	2%	4%

The response listed in Table XX indicates that 79 per cent of the subjects were favorable to the statement. Sixteen students failed to reply to the statement. At the lower end of the scale 12 per cent of the students indicated an unfavorable attitude. Thirty-four students were undecided. The unfavorable and undecided groups may include students who were exposed to poorly administered physical education programs wherein the mental and emotional outcomes were not emphasized. The physical education programs may have overly emphasized physical activity alone. It is obvious that an indifferently handled program of physical education would commonly ignore mental and emotional factors.

39. Participation in physical education activities makes for a more wholesome outlook on life.

TABLE XXI

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 39					
strongly agree	agree	un- decided	dis- agree	strongly disagree	no reply
55	280	27	27	2	11
14%	71%	7%	7%	1%	2%

The responses to this statement in Table XXI show a high percentage of students who feel that physical education participation makes for a more wholesome outlook on life. Only eight per cent of the students reported unfavorably to this item. Twenty-seven students were undecided and 11 failed to reply.

Physical Health. Eight of the 40 items listed in the inventory come under the category of physical health. It is found in Table II that 86 per cent of the subjects are favorable to the contributions to physical health from engaging in physical education activities. Only ten per cent of the students expressed an unfavorable attitude to this category. One hundred twenty-nine responses were marked undecided, and there were 94 instances of no replies.

The large percentage of favorable responses may be explained in several ways. Of the three categories in the inventory physical health is the easiest to determine. The awareness of the contributions of physical education activities to physical health is the most noticeable of the outcomes, and it has been emphasized for a longer

period of time.

The conception of the general public is that physical education is little more than muscular activity. In the area of physical health, many physiological factors are involved. The inventory used in this study inquires into such items as blood supply, posture, trunk muscles for providing a firm base for the vital organs, and a balance of weight.

Statements from the inventory that are included in the Physical Health category are numbered 3, 8, 19, 28, 31, 35 and 40. Results for each statement are reported separately in the following discussion.

3. Physical education activities provide no opportunities for learning to control the emotions.

TABLE XXII

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 3					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
24	48	13	179	130	9
6%	12%	4%	46%	32%	2%

The results shown in Table XXII indicate a rejection of the statement by a large majority of the subjects. It was felt by 78 per cent of the students replying that physical education activities provide for learning to control the emotions. Eighteen per cent of the subjects did not feel this way. Thirteen students were undecided



and nine students failed to reply to the statement.

8. A person's body usually has all the strength it needs without participation in physical education activities.

TABLE XXIII

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 8

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
12	44	16	221	101	9
3%	12%	4%	56%	25%	2%

The results shown in Table XXIII indicate that 81 per cent of the students feel that physical education activity of some sort, other than the normal activity of everyday life, is necessary. Only 15 per cent of the students responded adversely. Nine students failed to reply and 16 students were undecided regarding the statement.

15. Calisthenics taken regularly are good for one's general health.

TABLE XXIV

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 15

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
140	208	12	32	6	5
35%	52%	3%	9%	1%	1%

Responses found in Table XXIV indicate that 87 per cent of the subjects responded favorably, with only nine

per cent of the students falling at the lower end of the scale. Twelve students were undecided and five failed to reply. It is of interest to note that 35 per cent of the students strongly agreed with the statement.

19. Physical education does more harm physically than it does good.

TABLE XXV

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 19					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
4	22	3	160	195	19
1%	6%	1%	41%	51%	5%

The responses tabulated in Table XXV indicate a decided rejection of the statement with 92 per cent of the students replying favorably to the item. With seven per cent of the students feeling that physical education is harmful, some of this feeling might be laid to injuries or some unhappy experience in this area. While 19 students failed to reply, only three students were undecided about the statement.

28. Physical education skills make worthwhile contributions to the enrichment of living.

TABLE XXVI

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 28					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
57	278	27	31	5	5
14%	70%	7%	8%	1%	1%

From the tabulations in Table XXVI it is shown that 84 per cent of the subjects feel that physical education skills contribute to a richer life. At the lower end of the scale nine per cent of the students indicate an unfavorable attitude toward this item. It may be that of the nine per cent of the students some have a misconception of what is meant by physical education skills. Twenty-seven students were undecided about the contributions of physical education skills, while five students failed to express themselves on the item.

31. People get all the physical exercise they need in just taking care of their daily work.

TABLE XXVII

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 31

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
12	35	35	237	73	11
3%	9%	9%	60%	19%	2%

The responses in Table XXVII to the negative statement indicate that 79 per cent of the subjects refute the statement and 12 per cent of the students indicate a positive reaction. Thirty-five students could not make up their minds whether or not people received all the physical exercise they needed in their daily work. It is possible that with those students who agree with the statement there are some whose daily contact with life is



mostly in the form of hard work. If it is true that these students have known little except hard work in their environment, they could very easily react in the manner in which they did. Eleven students failed to reply, while 35 students could not make up their minds and remained undecided.

35. Physical education makes a valuable contribution toward building up an adequate reserve of strength and endurance for everyday living.

TABLE XXVIII

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 35					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
73	278	13	21	3	15
19%	72%	3%	5%	1%	4%

The results tabulated in Table XXVIII indicate a favorable attitude toward the statement. It is felt by 91 per cent of the students that physical education makes a valuable contribution toward everyday living. It is significant that only six per cent of the students registered at the lower end of the scale. Fifteen students failed to reply, while 13 students remained undecided.

40. As far as improving physical health is concerned, a physical education class is a waste of time.

TABLE XXIX

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 40

strongly agree	agree	un- decided	dis- agree	strongly disagree	no reply
9	18	10	166	179	21
2%	5%	3%	43%	47%	5%

The results shown in Table XXIX to this negative statement indicate that 90 per cent of the subjects were unfavorable to the statement and felt that physical education classes contributed to the development of physical health. Within the seven per cent of students who feel that a physical education class is a waste of time as far as improving physical health is concerned, some may have been exposed to poorly handled or indifferent programs. Some students could feel this way because of their own indifference in participation. While 21 students failed to reply, only ten students were undecided.

Unclassified Statements. Under this heading are listed the statements which were not assigned to the other categories. These statements express the general attitude of the subjects toward physical education activity participation.

The responses in this area, as shown in Table II, were favorable, with 75 per cent of the subjects registering at the upper end of the scale, as compared with only 20 per cent of the students appearing at the lower

end of the scale. Undecided responses number 245, and there were 224 failures to reply to statements in this category.

Statements that are in the unclassified area are numbered 1, 6, 9, 12, 13, 18, 22, 24, 27, 30, 33 and 38. Results for each statement are reported separately in the following discussion.

1. If for any reason a few subjects have to be dropped from the school program, physical education should be one of the subjects dropped.

TABLE XXX

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 1					
strongly agree	agree	un- decided	dis- agree	strongly disagree	no reply
29	104	9	147	95	19
8%	27%	2%	38%	25%	5%

There is not a wide differential in the responses to Item 1 as shown in Table XXX. Sixty-three per cent of the students responded unfavorably toward the statement while 35 per cent of the students felt that if any subjects had to be dropped from the school program, physical education should be one of them. This is a debatable situation, and if the assumption is made that the choice of physical education was made over other subjects such as history and science, then the responses



could be considered very favorable to physical education. Nineteen students failed to reply to this item, and nine students remained undecided.

6. The time spent in getting ready for and engaging in a physical education class could be more profitably spent in other ways.

TABLE XXXI

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 6					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
16	91	35	216	32	13
4%	24%	9%	55%	8%	4%

The responses to this negative statement, as shown in Table XXXI, indicate an unfavorable response to the statement itself from a majority of the students. Twenty-eight per cent of the responses indicated that preparation for, and time spent, in physical education classes could be spent to better advantage. This attitude may be the result of having participated in poorly organized programs or in programs that provided little motivation. Thirteen students failed to reply to the statement and 35 students were undecided.

9. I would take physical education only if it were required.

TABLE XXXII

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 9

strongly agree	agree	un- decided	dis- agree	strongly disagree	no reply
29	102	27	186	52	7
7%	26%	7%	47%	13%	2%

In Table XXXII the response to this negative statement indicates that a majority of students, 60 per cent, would take physical education because they liked it. On the other hand, 33 per cent of the students indicated that they would take physical education only if they had no choice. This would seem to indicate an antagonism toward physical education of some sort for reasons that can only be assumed. The reasons for this response might be an unhappy past experience with physical education or the amount of time required for participation in physical education classes. Twenty-seven students were undecided about the statement, while seven students failed to reply.

12. Physical education in schools does not receive the emphasis that it should.

TABLE XXXIII

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 12

strongly agree	agree	un- decided	dis- agree	strongly disagree	no reply
15	141	18	148	40	41
4%	39%	5%	41%	11%	10%

The responses shown in Table XXXIII indicate a fairly even distribution of favorable and unfavorable replies. Forty-three per cent of the students indicated that physical education should receive more emphasis, while 52 per cent of them expressed the opinion that enough emphasis is now placed on physical education. Eighteen students remained undecided and replies were not forthcoming from forth-one students on the statement.

13. Because physical skills loom large in importance in youth it is essential that a person be helped to acquire and improve such skills.

TABLE XXXIV

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 13

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
63	264	4	15	1	56
18%	76%	1%	4%	1%	14%

The indications in Table XXXIV are that the students are overwhelmingly favorable toward the statement. As against the 94 per cent of the responses on the upper end of the scale, only five per cent indicated an unfavorable response. Only four students were undecided regarding the statement. It is unaccountable that 56 students failed to reply to the statement. Only one student felt decidedly unfavorable to this item, while 63 students strongly agreed with the statement.



18. It is possible to make physical education a valuable subject by proper selection of activities.

TABLE XXXV

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 18

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
67	270	6	6	1	10
17%	70%	6%	6%	1%	2%

It is shown in Table XXXV that 87 per cent of the responses were favorable to the statement, with 17 per cent of this total strongly agreeing with the statement. At the lower end of the scale only seven per cent of the responses are unfavorable. Ten students failed to reply to the statement and six students were undecided whether physical education could become a valuable subject by proper selection of activities.

22. Physical education classes provide nothing which will be of value outside of the class.

TABLE XXXVI

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 22

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
9	36	12	229	117	0
2%	9%	3%	57%	29%	0

This statement is a negatively worded one. Table XXXVI indicates that 86 per cent of the subjects felt that physical education classes provided something of value

outside of the class, and of this total, 29 per cent felt very strongly about the matter. Only 12 students were undecided, while none failed to reply. A small minority of 11 per cent of the students reported unfavorably.

24. There should not be over two one-hour periods per week devoted to physical education.

TABLE XXXVII

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 24

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
26	81	58	178	58	2
7%	20%	14%	45%	14%	1%

The responses shown in Table XXXVII indicate that a majority of the students feel that there should be more time devoted to physical education than the two periods per week which is suggested in the negative statement. An unfavorable response to physical education was indicated by 27 per cent of the students. Only two students failed to reply to the statement, while 58 students were undecided regarding the statement.

27. There is not enough value coming from physical education to justify the time consumed.

TABLE XXXVIII

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 27

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
16	54	28	218	78	18
4%	12%	7%	57%	20%	4%



Table XXXVIII indicates that 77 per cent of the subjects replying to the negative statement feel that enough value is derived from physical education to justify the time consumed. Figures in the above table show that 16 per cent of the students indicate an unfavorable attitude to physical education. Twenty-eight students remained undecided, and 18 students failed to reply to the statement.

29. Physical education is an important subject in helping a person gain and maintain all-around good health.

TABLE XXXIX

NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 29					
strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
101	252	8	25	6	11
26%	64%	2%	7%	1%	3%

The response shown in Table XXXIX indicates that the large majority of the students feel that physical education is important in gaining and maintaining good health. Of the 90 per cent of students responding favorably, 26 per cent of them strongly agreed with the statement. Eight per cent of the subjects responded unfavorably, with eight students remaining undecided. Eleven students failed to reply to the statement.

30. No definite beneficial results come from participating in physical education activities.



TABLE XL

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 30

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
7	36	26	241	76	17
2%	9%	7%	62%	20%	4%

Statement number 30 is a negative statement. Eighty two per cent of the students responded favorably toward physical education, as is indicated in Table XL. A negative response was given by 11 per cent of the students, and 26 students remained undecided. Seventeen students did not reply to the statement.

33. All who are physically able will profit from an hour of physical education each day.

TABLE XLI

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 33

strongly agree	agree	un-decided	dis-agree	strongly disagree	no reply
78	245	19	39	5	17
20%	64%	5%	10%	1%	4%

The responses shown in Table XLI indicate a favorable attitude toward physical education by 84 per cent of the subjects. Only 11 per cent of the students replied unfavorably. Nineteen students were undecided, while 17 students failed to reply to the statement.

38. I would advise anyone who is physically able to take physical education.

TABLE XLII

## NUMBER AND PERCENTAGE OF RESPONSES TO ITEM 38

strongly agree	agree	un- decided	dis- agree	strongly disagree	no reply
91	221	31	44	2	14
23%	57%	8%	11%	1%	3%

Figures in Table XLII show that 80 per cent of the responses agree that anyone who is physically able ought to take physical education. Of this total, 23 per cent of the students strongly agreed with the statement. Thirty-one students were undecided, while 12 per cent of the students disagreed with the statement. Fourteen students failed to reply to the statement.



## CHAPTER IV

## CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations noted in this chapter are based on the attitudes expressed by students on the Wear Physical Education Attitude Inventory. The writer has related the attitudes to the outcomes sought from a good physical education program. Both favorable and unfavorable attitudes are noted in the conclusions and are listed in separate sections of this chapter.

General Conclusions. The following general conclusions resulted from an analysis of the findings:

1. The majority of the students responded on the favorable portion of the attitude scale in every category and with the unclassified statements. The area of physical health showed the highest favorable response.

2. A high percentage of the students agree that physical education contributes to social development, mental health, and physical health.

3. The majority of the enrolling freshmen men students at Oregon Technical Institute expressed a favorable attitude toward physical education as an activity course.

Favorable Responses. The findings of the inventory produced the following favorable responses:

1. Students at Oregon Technical Institute feel that



they will gain a better understanding of each other through associations in physical education.

2. The student feels that he will become a more socially desirable person by taking part in physical education.

3. The Oregon Technical Institute student feels that it is fun to associate with others in some physical education activity.

4. The Oregon Technical Institute student is of the opinion that physical education activities provide situations which will aid him in formulating attitudes which will help in making him a better citizen.

5. The Oregon Technical Institute student feels that physical education creates sociability, and that desirable experiences in this direction come about through team activities.

6. The Oregon Technical Institute student feels strongly that vigorous physical activity creates an interest in practicing good health habits.

7. The Oregon Technical Institute student feels that the development of physical skills and participation in physical education is good for one emotionally.

8. The student feels that engaging in group physical education activities aids in developing proper personality and assists in promoting a more wholesome outlook on life.

9. The student recognizes the value of strength and endurance, and feels that calisthenics taken regularly are good for his general health.

10. The student feels that physical education makes worthwhile contributions to the enrichment of living.

11. The student feels that physical education classes contribute to the improvement of health.

12. The Oregon Technical Institute student feels strongly that physical skills are important, and that it is essential that a person be helped to acquire and improve such skills.

13. The Oregon Technical Institute student feels that physical education is an important subject and helps a person gain and maintain all-around good health besides other beneficial results.

Unfavorable responses. Statements in the inventory which received less than 70 per cent favorable responses are regarded as unfavorable toward physical education. All responses that were marked undecided are considered unfavorable toward physical education, and are included with the negative responses.

In view of the general conclusions, the physical education program should be geared to meet these expressions of unfavorable attitudes toward physical education. Unfavorable attitudes toward physical education were



expressed in the following areas.

1. Physical education is one of the more important subjects in helping to establish and maintain desirable social standards.
2. Physical education classes are poor in opportunities for worthwhile social experiences.
3. Skill in active games or sports is not necessary for leading the fullest kind of life.
4. Participation in physical education makes no contribution to the development of poise.
5. If for any reason a few subjects have to be dropped from the school program, physical education should be one of the subjects dropped.
6. The time spent in getting ready for and engaging in a physical education class could be more profitably spent in other ways.
7. I would take physical education only if it were required.
8. Physical education in schools does not receive the emphasis that it should.
9. There should not be over two one-hour periods per week devoted to physical education in schools.

Recommendations. The following recommendations are derived from weighing the findings resulting from the administration of the Wear Physical Education Attitude



Inventory. The writer has kept in mind the favorable as well as the unfavorable attitudes of the students at Oregon Technical Institute toward physical education. It is felt, however, before recommendations for establishing a physical education program can be made, that the philosophy for expanding the recreation program should be explored. A common ground must be established between amusement and goals of more enduring cultural value in order that the emphasis for physical education activity can be properly placed. Specific recommendations are as follows:

1. Because of the importance of attitudes, and their change, the use of objective evaluation methods should be continued, with the administration of the Wear Physical Education Attitude Inventory or some other comparable testing means during freshman week.

2. An evaluation of physical education activities, such as skiing, camping and boating, should be undertaken in view of the inventory responses in the area of recreation.

3. A survey should be conducted of all students, both men and women, enrolled at Oregon Technical Institute covering their choice of physical education activities and the time best suited for such activities.

4. In view of the favorable attitude shown in this study and the inadequacies of the present intramural

program, the administration should consider ways of improving the intramural program through better means of communication, an improved office location, location of bulletin boards in strategic areas, publicity, and such other means as will contribute to a better program.

5. The objectives of physical education should be emphasized to the technical and classroom instructors at Oregon Technical Institute in view of the favorable responses of the students toward physical education.

6. As the result of the favorable attitudes toward physical education found in this study the administration should consider establishing an improved physical education program emphasizing physical, emotional and mental health and recreation skills with carry-over value.



## APPENDIX 1

## PHYSICAL EDUCATION ATTITUDE INVENTORY

PLEASE FILL IN THE FOLLOWING:

Age \_\_\_\_\_ Sex M F Veteran Yes No

Directions: Please read carefully: Below you will find some statements about physical education. We would like to know how you feel about each statement. You are asked to consider physical education only from the standpoint of its place as an activity course taught during a regular class period. No reference is intended in any statement to interscholastic or intramural athletics. People differ widely in the way they feel about each statement. There are no right or wrong answers.

You have been provided with a separate answer sheet for recording your reaction to each statement. (a) Read each statement carefully, (b) go to the answer sheet, and (c) opposite the number of the statement place an "x" in the square which is under the word (or words) which best expresses your feeling about the statement. After reading a statement you will know at once, in most cases, whether you agree or disagree with the statement. If you agree, then decide whether to place an "x" under "agree" or "strongly agree". If you disagree, then decide whether to place the "x" under "disagree" or "strongly disagree". In case you are undecided (or neutral) concerning your feeling about the statement then place an "x" under "undecided". Try to avoid placing an "x" under undecided in very many instances.

Wherever possible, let your own personal experience determine your answer. Work rapidly, do not spend much time on any statement. This is not a test, but is simply a survey to determine how people feel about physical education. Your answers will in no way affect your grade in any course. In fact, we are not interested in connecting any person with any paper--so please answer each statement as you actually feel about it. Be sure to answer every statement.



## STATEMENTS

1. If for any reason a few subjects have to be dropped from the school program, physical education should be one of the subjects dropped.
2. Associations in physical education activities give people a better understanding of each other.
3. Physical education activities provide no opportunities for learning to control the emotions.
4. Engaging in vigorous physical activity gets one interested in practicing good health habits.
5. Physical education is one of the more important subjects in helping to establish and maintain desirable social standards.
6. The time spent in getting ready for and engaging in a physical education class could more profitably be spent in other ways.
7. Vigorous physical activity works off harmful emotional tensions.
8. A person's body usually has all the strength it needs without participation in physical education activities.
9. I would take physical education only if it were required.
10. Participation in physical education activities tends to make one a more socially desirable person.
11. Participation in physical education makes no contribution to the development of poise.
12. Physical education in schools does not receive the emphasis that it should.
13. Because physical skills loom large in importance in youth it is essential that a person be helped to acquire and improve such skills.

14. Physical education classes are poor in opportunities for worthwhile social experience.
15. Calisthenics taken regularly are good for one's general health.
16. A person would be better off emotionally if he did not participate in physical education.
17. Skill in active games or sports is not necessary for leading the fullest kind of life.
18. It is possible to make physical education a valuable subject by proper selection of activities.
19. Physical education does more harm physically than it does good.
20. Developing a physical skill brings mental relaxation and relief.
21. Associating with others in some physical education activity is fun.
22. Physical education classes provide nothing which will be of value outside of the class.
23. Physical education classes provide situations for the formation of attitudes which will make one a better citizen.
24. There should not be over two one-hour periods per week devoted to physical education in schools.
25. Physical education situations are among the poorest for making friends.
26. Belonging to a group, for which opportunity is provided in team activities, is a desirable experience for a person.
27. There is not enough value coming from physical education to justify the time consumed.
28. Physical education skills make worthwhile contributions to the enrichment of living.
29. Physical education is an important subject in helping a person gain and maintain all-round good health.



30. No definite beneficial results come from participation in physical education activities.
31. People get all the physical exercise they need in just taking care of their daily work.
32. Engaging in group physical education activities is desirable for proper personality development.
33. All who are physically able will profit from an hour of physical education each day.
34. Physical education activities tend to upset a person emotionally.
35. Physical education makes a valuable contribution toward building up an adequate reserve of strength and endurance for everyday living.
36. For its contributions to mental and emotional well-being, physical education should be included in the program of every school.
37. Physical education tears down sociability by encouraging people to attempt to surpass each other in many of the activities.
38. I would advise anyone who is physically able to take physical education.
39. Participation in physical education activities makes for a more wholesome outlook on life.
40. As far as improving physical health is concerned a physical education class is a waste of time.



## APPENDIX 2

## CLASSIFICATION OF STATEMENTS IN THE ATTITUDE SCALE

SOCIAL HEALTH

2. Associations in physical education activities give people a better understanding of each other
5. Physical education is one of the more important subjects in helping to establish and maintain desirable social standards.
10. Participation in physical education activities tends to make one a more socially desirable person.
14. Physical education classes are poor in opportunities for worthwhile social experiences.
17. Skill in active games or sports is not necessary for leading the fullest kind of a life.
21. Associating with others in some physical education activity is fun.
23. Physical education classes provide situations for the formation of attitudes which will make one a better citizen.
25. Physical education situations are among the poorest for making friends.
26. Belonging to a group, for which opportunity is provided in team activities, is desirable for a person.
37. Physical education tears down sociability by encouraging people to surpass each other in many of the activities.

PHYSICAL HEALTH

3. Engaging in vigorous physical activity gets one interested in practicing good health habits.
8. A person's body usually has all the strength it needs without participation in physical education activities.
15. Exercises taken regularly are good for one's general health.
19. Physical education does more harm physically than it does good.
28. Physical education skills make worthwhile contributions to the enrichment of living.
31. People get all the physical exercise they need in just taking care of their daily work.
35. Physical education makes a valuable contribution toward building up an adequate reserve of strength and endurance for everyday living.
40. As far as improving physical health is concerned a physical education class is a waste of time.

MENTAL HEALTH

4. Physical education activities provide no opportunities for learning to control the emotions.
7. Vigorous physical activity works off harmful emotional tensions.
11. Participation in physical education makes no contribution to the development of poise.
16. A person would be better off emotionally if he did not participate in physical education.
20. Developing a physical skill brings mental relaxation and relief.
32. Engaging in group physical education activities is desirable for proper personality development.
34. Physical education activities tend to upset a person emotionally
36. For its contributions to mental and emotional well-being physical education should be included in the program of every school.
39. Participation in physical education activities makes for a more wholesome outlook on life.

UNCLASSIFIED

1. If for any reason a few subjects have to be dropped from the school program, physical education should be one of the subjects dropped.
6. The time spent in getting ready for and engaging in a physical education class could be more profitably spent in other ways.
9. I would take physical education only if it were required.
12. Physical education in schools does not receive the emphasis that it should.
13. Because physical skills loom large in importance in youth it is essential that a person be helped to acquire and improve such skills.
18. It is possible to make physical education a valuable subject by proper selection of activities.
22. Physical education classes provide nothing which will be of value outside of the class.
24. There should not be over two one-hour periods per week devoted to physical education in schools.
27. There is not enough value coming from physical education to justify the time consumed.
29. Physical education is an important subject in helping a person gain and maintain all-around good health.



30. No definite beneficial results come from participation in physical education activities.
33. All who are physically able will profit from an hour of physical education each day.
38. I would advise anyone who is physically able to take physical education.

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